

Vol. 30

The NOR'WEST FARMER

ISSUED TWICE A MONTH



No. 2

THE PIONEER FARM PAPER OF WESTERN CANADA.



See Page 123.

WINNIPEG, CANADA.

Nor'-West Farmer Limited, Publishers.

JANUARY 20, 1911.

John Deere Engine Gang

FOR PERFECT WORK



MORE JOHN DEERE ENGINE GANGS SOLD IN WESTERN CANADA THAN ANY COMPETITIVE MAKE

4, 6, 8, 10, 12 or 14 BOTTOMS

Labor most advantageously employed is the most productive

The two men operating the engine plowing outfit shown here, will do from fifty to one hundred per cent. more work than six men and teams operating single bottom plows.

Therefore the profit on their labor is greater.

Or, to put it another way, the resulting crop costs less and is consequently more profitable.

This principle of the economical use of labor is one of the essentials of profitable farming.

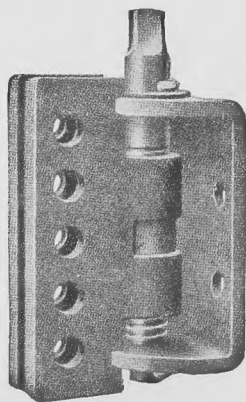
John Deere Engine Plows are built to operate most economically.

And to do the best work.

Here are a few important features.

Indestructible bridge-like steel frame, carried on three easy running wheels and covered with perfectly level platform. Plows

This is the Screw Clevis.
Found only on John Deere
Engine Plows.



Gives the Plows an Absolutely Accurate Adjustment.

attached to frame in pairs, each pair being operated by a single lever. One man can operate a John Deere Engine Plow, regardless of size. Each beam point is attached to a screw clevis, so plows can be given exactly the right adjustment.

A gauge wheel runs between each pair of bottoms making it possible to use rolling coulters in the right way. Beams carry stubble, turf and stubble, or breaker bottoms. And John Deere Bottoms have never been equalled for quality of work and light draft.

John Deere engine plows have the bottoms attached to frame in pairs. This ensures steady running, best work, easiest handling.

We have just published a new book which is the best thing ever put out on engine plows. It is FREE on request.

Ask for Package No. 50

JOHN DEERE PLOW CO. LTD.

WINNIPEG

REGINA

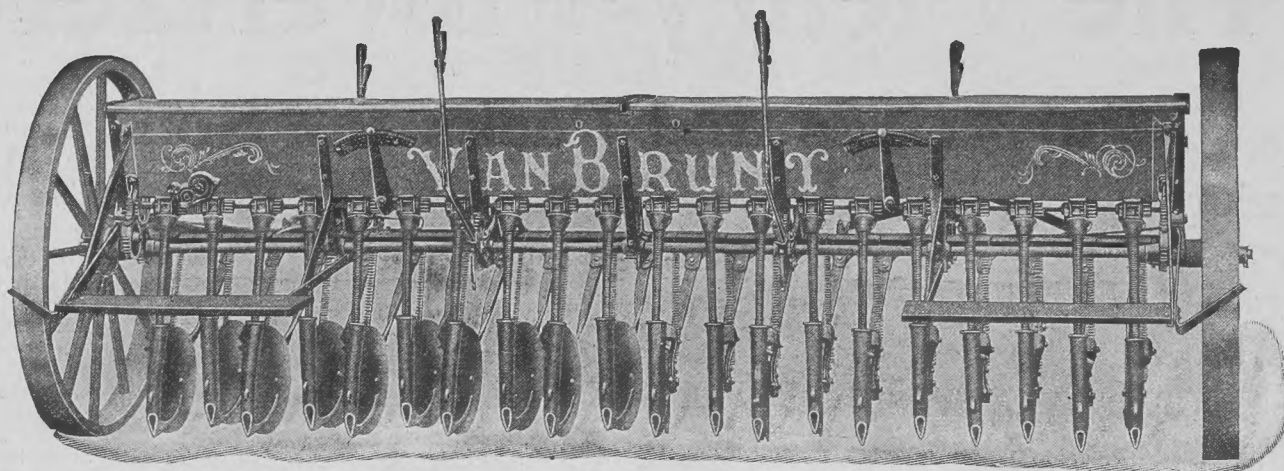
CALGARY

SASKATOON

EDMONTON

Not One Kernel Wasted

Light
Draft
Disc
Drills



New
1910
Boot
Discharge

Faultless work in any condition of soil on which a horse or engine can travel. Misses nowhere. Sticks at nothing.

VAN BRUNT

The Only Perfect Grain Planting Machine

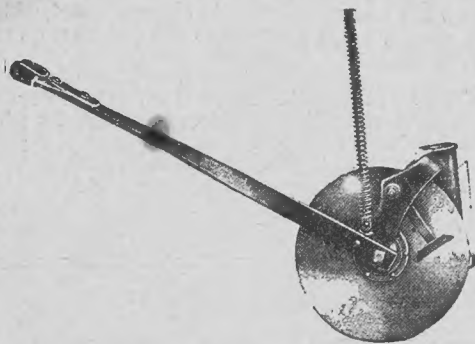
The model from which all clumsy copies have been made. Stronger and lighter by 300-400 pounds than imitations.

The first successful Single Disc with closed delivery was made by Van Brunt in 1900. Now, in 1910, Van Brunt again revolutionizes the business of seeding by producing the boot and discharge WITHIN instead of outside the circle of the disc. The direct effect of this is that the seed is actually planted at the required depth. Not a single grain is left on top of the soil or so near the surface that the first strong wind or heavy shower exposes it. This cannot happen with the

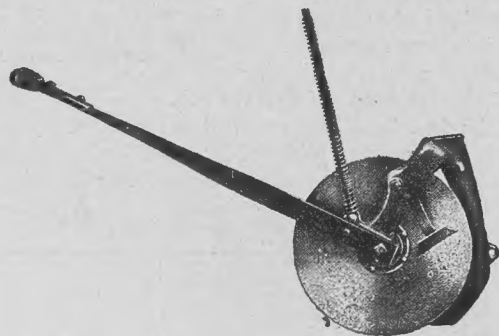
Van Brunt New Model

In 12, 14, 16, 18, 20, 22 and 24 Single, Double Disc and Shoe Interchangeable

WRITE FOR CATALOGUE



NEW STYLE



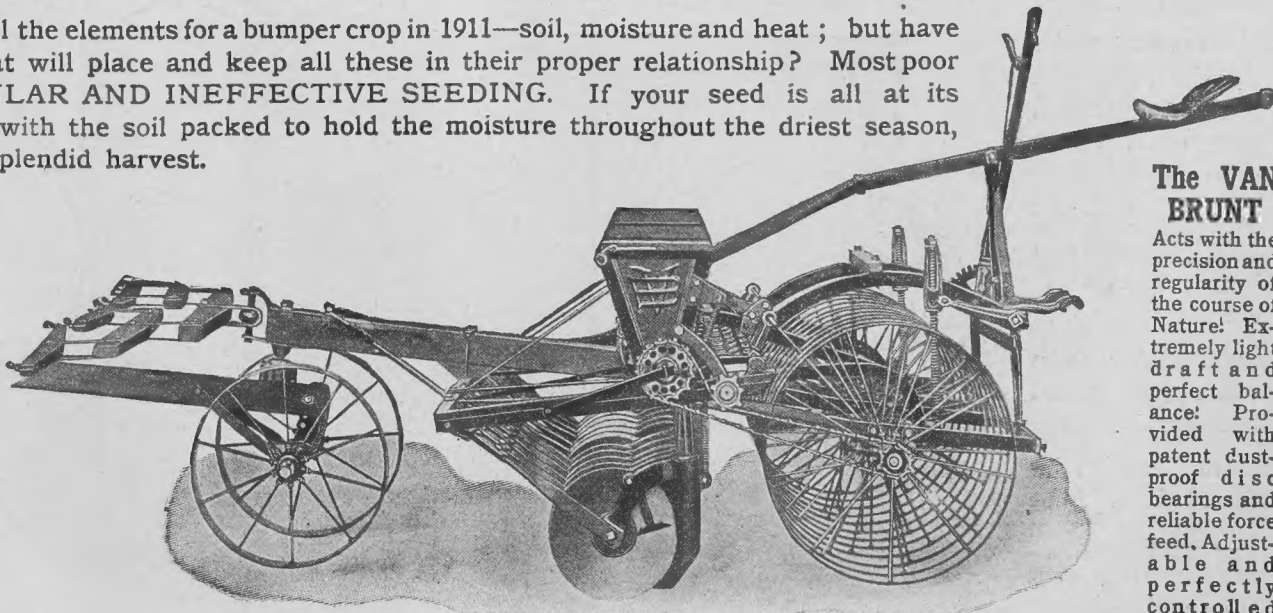
OLD STYLE

SEED CANNOT FAIL TO GERMINATE IF SOWN WITH A VAN BRUNT PRESS DRILL

With good seed you have all the elements for a bumper crop in 1911—soil, moisture and heat ; but have you the IMPLEMENT that will place and keep all these in their proper relationship? Most poor crops are due to IRREGULAR AND INEFFECTIVE SEEDING. If your seed is all at its proper germinating depth, with the soil packed to hold the moisture throughout the driest season, you cannot fail to reap a splendid harvest.

The Real Purpose of a PRESS DRILL

being to sow the grain at an EVEN DEPTH, the pressure must be uniform at every point. Any inequality or bunching is fatal to the crop. The "VAN BRUNT" will plant every kernel exactly at its proper depth in the seed furrow. It is the only LOW DOWN PRESS DRILL having a perfect balance with an easy adjustment to throw it in or out of gear:



The VAN BRUNT

Acts with the precision and regularity of the course of Nature! Extremely light draft and perfect balance! Provided with patent dust-proof disc bearings and reliable force feed. Adjustable and perfectly controlled pressure.

END VIEW OF SINGLE DISC PRESS DRILL Made in 7 inch Feeds, 14, 16 and 18 sizes, Single and Double Disc and Shoe

A VAN BRUNT IS THE CROP'S SALVATION

JOHN DEERE PLOW CO. LTD.

WINNIPEG

REGINA

CALGARY

SASKATOON

EDMONTON

The Fleury Pulverizer

Pulverizes and Packs the Soil

How a Pulverizer Helps

A good seed bed is composed of a fine mellow soil well packed to ensure capillary connection with the subsoil.

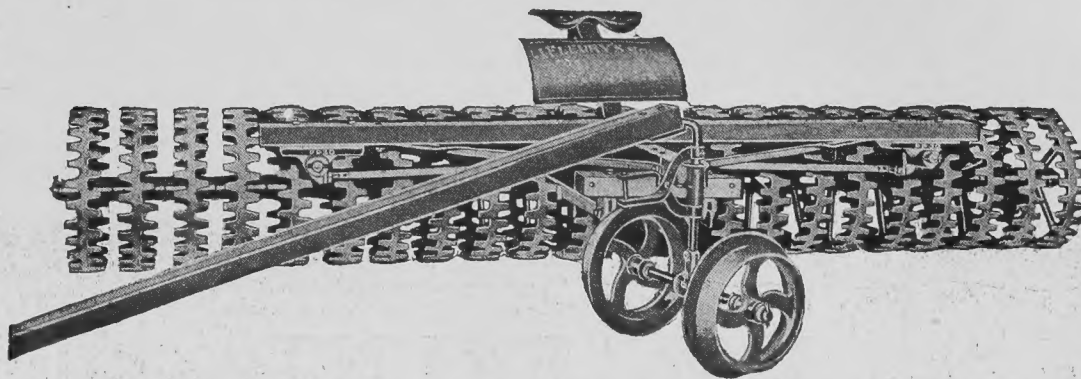
Such a seed bed will produce better crops than a lumpy one of the same chemical composition.

This is why a good pulverizer should be a part of your equipment. Other things being equal it insures better crops.

It is often necessary to plow land when it will break up into large chunks or clods. In such a case, a pulverizer is indispensable for fining the soil.

The fact is, almost any soil is benefitted by being pulverized and packed after plowing, regardless of its condition.

Light, loose, soils are kept from drifting by being treated in this way.



READ WHAT A FARMER SAYS OF THE FLEURY PULVERIZER "TONGUE TRUCK"

John Deere Plow Co., Winnipeg, Man.

Hamiota, July 8th, 1910

Dear Sirs:—Yours of the 5th inst. to hand re tongue truck for pulverizer, and beg to say it is entirely satisfactory and much easier on the horses than the old style. My man drove the old style pulverizer last year, and he says that the tongue truck makes a wonderful difference to the horses; it apparently is perfectly strong and I think there is not much room for improvement. We packed about 175 acres with it and you can hardly tell it has been used, and I would not buy a pulverizer without a tongue truck at any price after using it with one.

Yours truly, WM. WRIGHT

Excellent features of the FLEURY PULVERIZERS. Ask us for further information. Fleury Pulverizers are made in the following sizes: 16 Section, 1 pole. 22 Section, 1 pole. 22 Section, 2 pole. 24 section 2 pole. 22 section, 2 pole, pulley hitch, with double-trees. 24 section, 2 pole, pulley hitch, with double-trees. 22 section with tongue truck.

The Fleury Does the Business

In the first place it is sufficiently heavy for its work—there is no necessity for weighting.

The sections are so constructed that they pulverize all lumps and pack the soil so it is in good seed bed condition. At the same time, it helps to produce a surface mulch which holds moisture.

It does the work of both a pulverizer and a land roller.

Also, this pulverizer is sufficiently flexible to accommodate itself to rolling land.

Besides this, it is very durable. It has bushings that take the wear instead of the wheels. The ends of the wheel hubs are chilled, which reduces the end wear on the wheels.

These are a few of the excellent features of the FLEURY PULVERIZERS. Ask us for further information.

NEW DEAL WAGON

New-Deal Wagon

Is made of air-seasoned lumber.

Is equipped with double collar skein.

Skeins are dust-proof, therefore will hold grease longer and run easier than others.

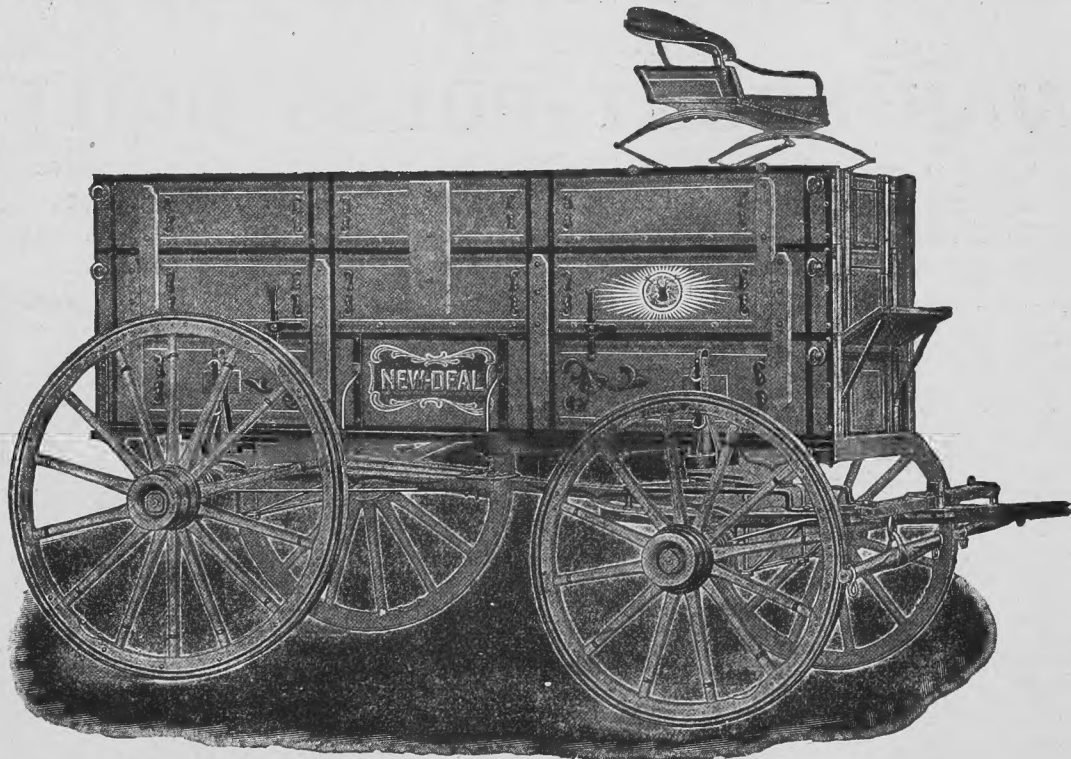
Skeins are heavier; bell is longer and larger, taking more axle.

Has riveted grain cleats (not nailed or screwed).

Bottom of box is reinforced both front and rear.

Has clipped gear, both front and rear.

Box is made flax tight



New-Deal Wagon

Spring seat with 3-leaf springs (not single leaf).

Steel bolster stake plates on side of box.

Neck yoke 48 in. long (not 42 in.)

Has trussed tongue, cannot break or warp.

Has channel iron reach really indestructible.

Is extra well painted, striped and finished

Possesses a great many distinctive features of merit.

JOHN DEERE PLOW CO. LTD.

WINNIPEG

REGINA

CALGARY

SASKATOON

EDMONTON

Still Slaving for a Bare Existence?

When all the time—in 10 acre lots of the grandest spot of your own country—with less capital, a fraction of the labor, and none of the worry, you can earn a **GREATER REVENUE** than from a quarter section of the best wheat land on earth.

We are clearing, irrigating, and planting some ten acre tracts in the **WHATSHAN VALLEY**, and will sell at \$150 per acre.



Two Year Old Tree, Needles Apple Orchard.

Three Annual Payments Without Interest

This is the most remarkable bargain ever offered in British Columbia Fruit Lands. We would like to have the opportunity to explain the details to you. Call at our office, or drop us a card with your name and address on it, and we will send you full information. It is the

Apple Orchard Opportunity of a Lifetime!

We are only selling a few of these tracts in order to open the valley and advertise our lands. You must act promptly if you are to be among the favored few.

Beaton & Vezina

304 Enderton Bdg., Winnipeg.

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BUYING AND SELLING LIVE STOCK.

Live stock improvement is a mighty big work. Going back over the years, we find that the great nineteenth century movement toward the uplifting and improvement of agriculture was largely wrapped up with the development of better breeds. The old live stock improvers were the real apostles of a more scientific and advanced farming.

It will always be so. Successful live stock breeding is a fine art. It takes pains and brains, it takes skill and will to keep on bringing out something better in any branch of the animal kingdom than has been known heretofore. And yet our breeders are doing it. Even within the past few years the records have been broken—records for speed, for milk production, for egg laying, for profitable meat making, and so on right down the line. The breeder's art is creative, and defies limitations.

Blood is bound to win. It has been so in other lands, and it will be so in Western Canada. The man who wants to build for the future must say goodbye to the scrub and take up with the pure bred. He must travel the up-grade instead of the down-grade. He must breed money-makers instead of money-losers.

Now, a word for our breeders. We have a goodly number of them scattered all over our prairies. It would pay our readers well to know them better. Almost all of them are very well worth knowing. They are men with ideas and ideals—progressive men who are trying to do something just a little better than it is being done by the other fellows. Almost without exception they are men of character—honest men doing honest work. Many of them have had their name before the public for years, and their honor still stands unchallenged.

These men find advertising in a paper such as this an indispensable part of the business. They do it for a purpose: that is, to connect supply and demand. The breeder must grip hands with the buyer. Put the buyer can help. He can read the advertisements of breeders. He can write breeders and make inquiries. They will all be glad to reply, even if they do not make a sale. In this way he will be familiar with the sellers, their offerings and their prices. Such a man can always buy better stock, from better breeders and at lower prices than the man who doesn't know. Such a man will be a common-sense, intelligent, informed purchaser.

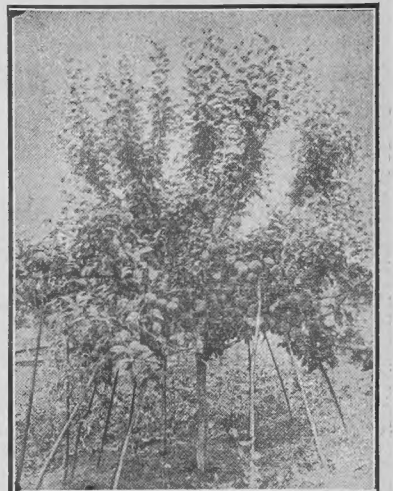
Isn't this true? Isn't this the way it works out in all lines of business? Isn't there a premium on up-to-dateness and a large acquaintance? And isn't it a sensible thing to use the mails freely to enlarge one's acquaintance? And so doesn't it pay the farmer who wants to improve his stock to answer the advertising announcements of men who have stock to sell? Of course it does. It has been proven thousands of times, and you can prove it yet again. Try it.

When You May Live in Perfect Comfort

In cultivating a 10 acre Apple Orchard in the Whatshan Valley of B.C., you are engaging in the most delightful and the most natural occupation that has been given to man.

The serious business of life is approached with all the piquancy of a hobby, and a man who throws all the zest of a hobby into his work cannot fail to

Make Money



Five Year Old Tree, Needles Apple Orchard.

British Columbia's Fruit Lands

have already proved the means of wealth to many who entered the province with but a pittance to their credit, and they have restored to health shattered constitutions that could no longer bear the strain of city life and the rigors of an eastern climate. We offer 10 acre lots (not less to any one person) in the

WHATSHAN VALLEY

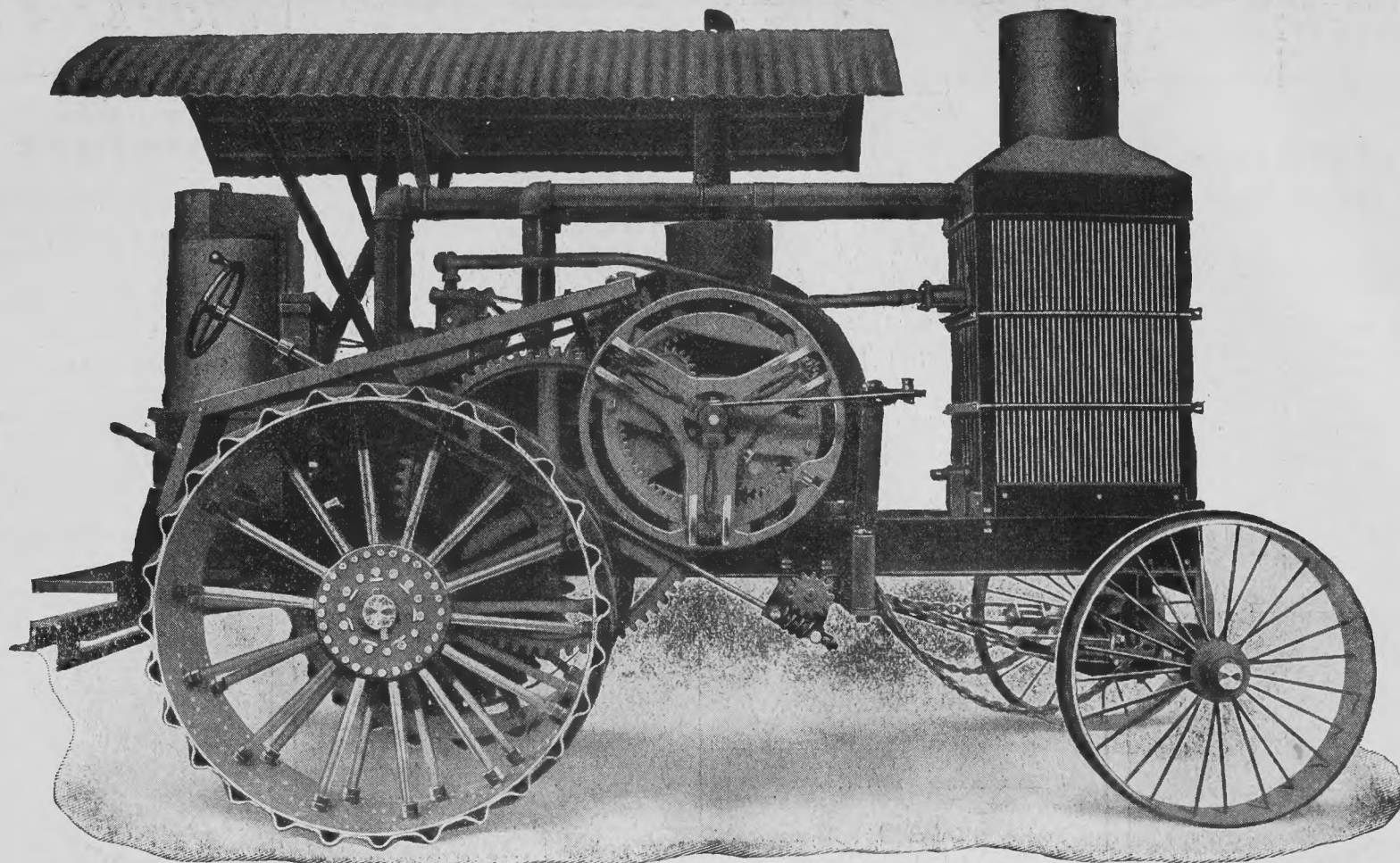
which is within two or three miles of the Lower Arrow Lake...The land is peculiarly adapted to apple raising, and the transportation facilities are of the best.

PRICE INCLUDES CLEARING AND IRRIGATING AND WHEN YOU HAVE SECURED THE DEED TO THE PROPERTY, WE WILL CARE FOR IT UNTIL YOU MOVE ON TO IT.

Beaton & Vezina

304 Enderton Bdg., Winnipeg

45 H.P. HART-PARR GAS TRACTOR



The Modern Farm Horse

SPECIFICATIONS:

CYLINDERS—Two horizontal cylinders, 10 in. bore, 15 in. stroke. Speed, 300 R.P.M.. A long stroke, moderate speed motor — the most efficient kind, and the one that wears longest. Cylinder heads hemispherical in shape, and cast with the rest of cylinder; hence no packed joints. Valve cages ground to seats—no packing there.

CRANK SHAFT—A pressed steel forging, of high tensile strength, annealed and oil tempered,—tough and dependable. Diameter of crank shaft in the bearings, 4 in.; diameter of crank pins, 4½ in. Crank shaft offset 2 inches from center line of cylinders, adding to the efficiency of engine, decreasing wear of cylinders and pistons, and making engine very easy to start.

GEARS—Every gear of steel or semi-steel; we use no cast iron gearing. Planetary reverse gears are drop forged with machine cut teeth. Our planetary reverse makes it possible to use a single operating lever,—the only way it can be done.

BEARINGS—Main crank shaft bearings and crank pin bearings made in the form of half bushings (easily replaceable), and of a special composition of high grade babbitt, copper and aluminum; one of the best anti-friction metals and exceedingly tough. All other bearings of the best grade of babbitt or phosphor bronze.

LUBRICATION—Force feed lubrication to cylinders, connecting rod and crank shaft bearings, beside spray lubrication in enclosed crank case. Force feed lubrication to gear train.

DRIVING WHEELS—66 in. diameter, 24 in face. Our wave form driver cleats make the bearing power of these wheels equivalent to a 32 inch width wheel of the usual construction. The only perfect driver cleat for use on plowed ground for discing and seeding. Wheels built up entirely of steel: cleats riveted to tire. The most substantial, satisfactory driving wheel built. Rear axle 5 in. diameter of open-hearth steel.

CONNECTING RODS—Steel drop forging of I section. Studs for caps of 1 inch Vanadium steel.

IGNITION—"Jump Spark" ignition with two sets of dry batteries, and "single spark" induction coils,—the most efficient battery spark coil made.

RATINGS—Guaranteed to easily deliver 45 brake horse power all day. Every engine tested up to at least 60 brake horse power before it leaves the works. Guaranteed to pull the same load, on firm, level footing, as twenty-two ordinary work horses. Most of our customers are doing the work of 25 to 30 horses with these tractors; will actually deliver 35 to 40 "draw-bar horse power." We rate them conservatively so that purchasers will always find they do better than we claim for them.

RATE OF TRAVEL—2.3 miles per hour. Compare this with the 2 miles per hour of other gas tractors; and consider what this higher rate of travel means when plowing on loose, loamy soil, or discing, seeding and harvesting.

One Price to Everyone---\$2,800 F.O.B. Portage la Prairie

Read the specifications, compare them with what others are offering, and you will see that we give you much more for your money than you can get elsewhere. We can do this because we build thousands of them in the most up-to-date plant of its kind.

THE ORIGINAL KEROSENE TRACTOR

We have been building Kerosene Tractors for Five Years.

We build two other sizes of tractors. Our New Illustrated Catalog, No. 11, describes all of them fully and will interest you. Write for it to-day.

HART-PARR CO., 28 Main St., Portage la Prairie

THE CHAPIN CO., Agents for Alberta

(Manitoba)

The Nor'-West Farmer

"Civilization begins and ends with the Plow."

Vol 30. No. 2.

Winnipeg, Canada, January 20, 1911.

\$1.00 a Year in Advance.

Growing Flax in the West.

Some Interesting Practical Experience—Not a Specially Exhaustive Crop, but a Profitable One—Careful Attention Necessary—Results in Southern Manitoba—Statement of Expenses—Good Seed and Firm Seed-bed Essential—Flax After Oats, Barley or Wheat—A Good Crop Under Adverse Conditions—Yield Depends on Seed and Cultivation—Diseased Seed Means Diseased Land.

By D. A. Downie, Winnipeg.

At the present time there is much less flax produced in Western Canada than of any other grain, and the acreage each year is very small compared to that of the best of our other marketable grains. As a general rule, very little is known about the production and general handling of this grain, and a great many erroneous ideas are current. The statement is often made that flax will leave the land very much impoverished and entirely unfit for other grains until summer followed. It is also claimed that two crops of flax cannot be successfully grown upon the same land two years in succession. These statements are not correct. In the first place, flax being somewhat of an experiment, a great many of these statements are passed from man to man without proof of any kind; and, secondly, where the production or non-production of the grain itself appears to prove the truth of the assertion, it can always be traced to improper cultivation or poor selection of seed.

To make the greatest success of flax careful handling is necessary, especially careful selection of seed. But no other grain will stand so much rough work and poor climatic conditions and yet give such good returns. If a man contemplates sowing flax, it is certainly best to thoroughly study his materials in order to make the best of everything combined. I have had some experience during the last few years with this grain under nearly all conditions, and I can take off a good crop when other varieties of grain beside me have practically been a failure. This past season Southern Manitoba was dry, and yet I took off an average crop of 11 bushels per acre from 250 acres. The price I received was \$2.40 per bushel, therefore the gross returns were \$26.40 per acre.

This land was broken late the previous season, and some of it was backset the same fall and the balance in the spring. The spring back-setting was no good, as we had no rain, and, owing to the absence of rain, the land was very rough and did not work up well. It was therefore very hard to use the drills, and the seed was

put in very unevenly. We harrowed twice with the drags, and then seeded approximately one-half bushel to the acre, as previously stated, of 11 bs. to the acre. The seed was put in from the 1st to the 10th of June, and during the entire period between seeding and harvest we had only one fair rain. The crop looked, and was, very uneven. There were portions that would have yielded 18 bushels to the acre, and other portions that were very light. We let it stand until late, trying to let the backward grain ripen, so that the whole might be cut together. However, we finally had to cut it, good and bad together. We used ordinary binders, but did not use any twine, as that

would hold the sheaves so tight that they would become matted and hard to thresh. We just dumped it out on the ground in long windrows and left it alone until nearly ready to thresh, with the result, as previously stated, of 11 bs. to the acre.

The entire work done on this farm was under difficulties, as it was an outlying piece of land, and everything, from the first breaking by the engines to the delivery in the elevators, was either by contract work or by straight day labor, and as every person was busy themselves we had to wait until others were through and pay the highest wages to secure help at all. That is one reason why flax should recommend itself to Western farmers. It is seeded after all other seeding is done, and can wave in

the wind until you are through harvesting all your other grain.

The total cost of breaking, back-setting, harrowing, seed, seeding, cutting, threshing, delivery to the elevators and loading on the cars amounted to \$10.75 per acre, leaving a margin of \$15.65 per acre.

I was interested, also, in another crop of flax the past season in a locality where the rainfall was abundant, and the return from 1000 acres was a little over 15,200 bushels. We did not sell on the highest market, and our returns averaged \$2.00 per bushel, or a total of \$30,400. Our total expenses, including interest, taxes and entire outlay, amounted to \$11,538.00. A statement of the operations follows:—

Preparing and plowing 1,000 acres at \$3.00 per acre	\$3,000.00
Harrowing and seeding at \$2.25 per acre	2,250.00
Seed at \$2.50 per bus. (½ bus. per acre)	1,250.00
Harvesting at 75c. per acre (no twine used)	750.00
Threshing and boarding men, 16c. per bus. (15 bus. per acre)	2,400.00

You know that you mean to renew your subscription to this paper in a few days, so why not sit right down and do it now?

Delivering to elevators (\$5.00 per day for teams, 60 bus. per load, 6 trips per day)	208.33
Taxes (approximately 10c. per acre)	100.00
Interest for one year on original investment of \$18.00 per acre, 6 % per annum	1,080.00
Other expenses that cannot be itemized and counted on before work is complete	500.00
	\$11,538.00
15,200 bus. flax at \$2.00 per bus.	\$30,400.00
Balance	\$18,862.00
	\$30,400.00 \$30,400.00

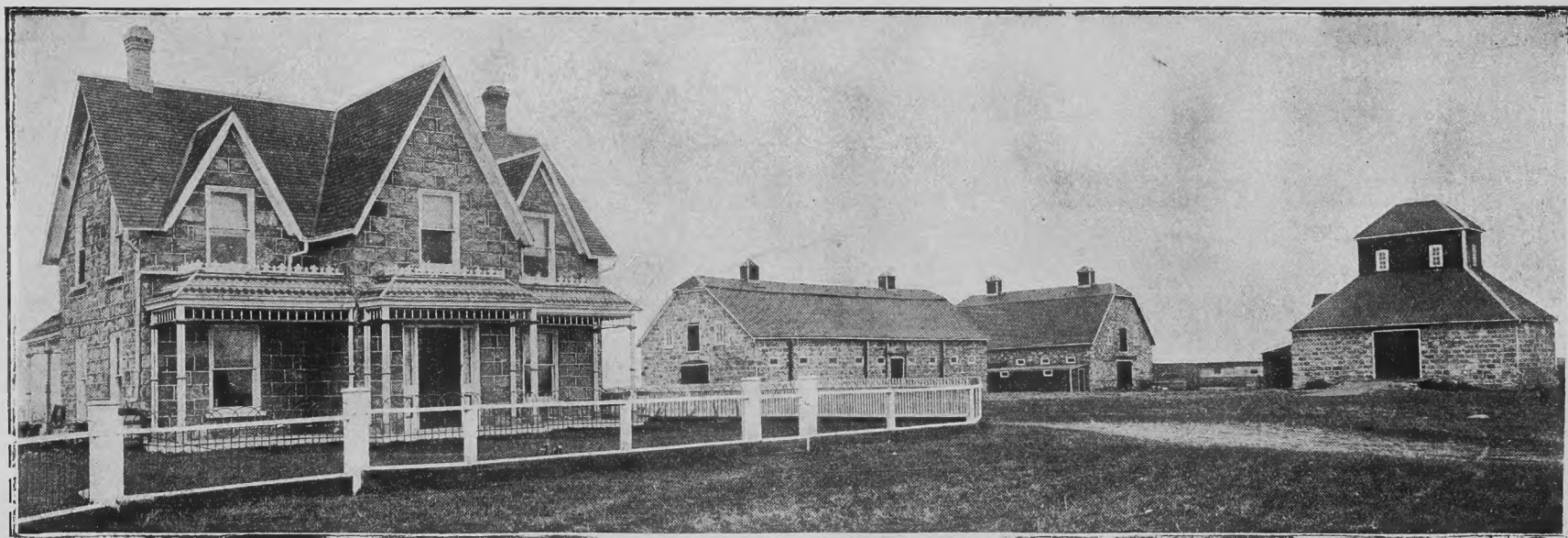
After the first year the plowing will cost about \$1.25 per acre, instead of \$3.00 which is paid for the original breaking. All of this work was done under contract by steam outfits, and the prices paid allowed the contractors to make a good margin of profit on their work.

Now, my experience on old land has been somewhat limited, but I have watched the methods of others, and noted the causes of their success or failure. It is absolutely necessary to have the land thoroughly packed and the seed placed just about an inch (or less if possible) beneath the surface, next to the moisture. Flax seems to absolutely require a solid seed-bed, just loosened on the surface. The roots penetrate deeply and evidently require resistance to cause growth and extension.

The selection of seed is most important. It must be clear and absolutely free from any rough spots or any adherences, as such are not simply evidence of spoiled kernel but a disease or germ that, after seeding, will spread to the roots of the healthy plants and will leave whole patches a failure. And, worse than that, it will leave your land in a diseased state, which will affect after crops, until the turning of the soil to the air (summer fallow) drives out these germs and re-sweetens the land. This can all be avoided, however, by proper selection of seed. See that the seed is bright, fully ripened and clear. See that there are no foul weeds—in fact, nothing but pure, clear, bright flax kernels. For such seed, if you are just starting out, you must either go to new breaking in a new district or place your order early with some of the big seed houses that have good reputations, and then see that they deliver just what you want and order. You will have to pay the price for such seed, but this means the difference between a good paying crop and a poor one, more than anything else.

A field that has had two crops of oats since summer fallow will yield a good crop of flax, provided the land is packed solidly and all the work of plowing, harrowing, packing and seeding is done as nearly at the same time as possible. Be sure and do not sow until all danger of spring frost is past. The grain grows and matures very rapidly, but the young plants cannot stand any frost. Any time along to the middle of June is good time to sow. The matured grain in the fall is very difficult to injure, and will stand a lot of frost. In the case of a wet harvest the grain itself will not be injured, but the straw becomes very hard to handle, as it must be perfectly dry either to cut or thresh.

A wet growing season will keep the



"The Grange," home of Scallion Bros., Virden, Man.

plants green longer than otherwise, but will not injure the grain as long as the land does not become flooded. It is a much easier crop to save in a wet season than any other grain, as, although delays may occur through being wet, yet the grain itself will not be injured unless the wet season continues very long.

The yield per acre depends altogether on the selection of the seed and the proper packing of the land. One of the heaviest crops of flax that I have ever seen was produced on new spring breaking without harrowing. The land was broken by an engine and rolled, and the drills followed at once. This crop yielded 26 bushels per acre of over 100 acres. I may say also that this was owing very largely to proper seed selection, as at the time flax was selling on the open market around \$2.00, and this man paid \$4.25 per bushel for his seed, thereby securing the very best possible.

Referring again to the debilitating influence on the soil, this is not true of flax any more than of any other grain, provided the seed is selected properly. If you want a second crop of flax on the same land, change your seed, work a shallow seed-bed thoroughly with a well-packed bottom, and your crop will be as good as any other crop under the same conditions.

To follow flax with wheat, it appears to be best to plow as soon as threshing clears the land, work deeply, very thoroughly and often, and you will have a good crop. To follow with oats or barley, let the land lie until time to put in the seed. Plow down the growth, work thoroughly and seed quickly.

To grow the best quality of potatoes one should have a fairly open soil, not too heavy, but very well fertilized.

There are a great many uses for the telephone upon the farm, but probably the greatest service this little convenience can offer comes at the time of illness, when medical aid can be speedily summoned, and so much time saved that a life may be spared.

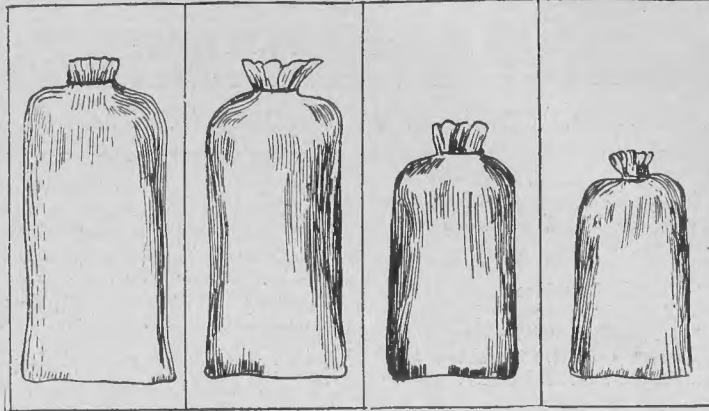
RESULTS OF CROP ROTATION, GOOD SEED WHEAT AND GOOD CULTIVATION

First six Demonstration Farms in operation four years.

Second six Demonstration Farms in operation three years.

Eight Demonstration Farms in operation one year.

U.S. Dept. of Agriculture report for North Dakota 1909.



Average wheat yield 26.49 bushels per acre.

Average wheat yield 22.22 bushels per acre.

Average wheat yield 14.40 bushels per acre.

Average wheat yield 13.70 bushels per acre.

An Object Lesson in the Results of Good Farming.

In the 1909 report of demonstration farms in North Dakota is a telling object-lesson on the "Results of Crop Rotation, Good Seed Wheat and Good Cultivation." We reproduce it herewith. The large full bag represents the average yield per acre on the first six demonstration farms that had been worked under a careful rotation for four years. The second, somewhat slacker, sack represents the yield from farms given this care for only three years. The third sack represents results on the farm given only one year's care; and the fourth the average on the ordinary farms of the State.

The moral that good seed, good cultivation, and proper rotation paid well is quite plain.

Corn as a Fodder Crop For Western Canada.

Report by Superintendent Murray, Brandon Experimental Farm, to Director of Dominion Experimental Farms.

Corn is one of the crops that, if better known, would be grown much more generally in Western Canada than it is. It is not a new crop, but has been on trial for a great many years, and has amply proven its worth. Its warmest advocates do not claim that it can be matured as successfully as it can further south, but those who have given it a fair trial will agree that it grows luxuriantly under our climatic and soil conditions, and produces more good fodder per acre than any other crop we can grow. More than this, it responds to good treatment to an extent equalled by few other crops

by giving a liberal return for manure applied and for cultivation through the growing season. The cultivation also aids materially in clearing the land of weeds and in preparing it for the next crop. If corn were more generally grown the solution of the weed question would be simplified and a stimulus given to more thorough farming.

Corn will thrive on any fertile, well-drained soil. A warm soil with a southern slope is preferred by some growers, but although this may be an advantage it is not necessary. To secure the most favorable conditions, I would recommend the ploughing of a field of sod in late summer after applying manure at the rate of about 16 tons per acre. The more the land can be worked before winter the better, and in the following spring it can do with little attention until after seeding, though an occasional harrowing to kill weeds and check evaporation should be given. But to secure a good crop a sod is not necessary. Stubble may be ploughed either in fall or in spring after the application of manure, and worked down into good condition by the twentieth of May. The manuring should not be neglected, as no other crop on the farm will make better use of manure than will corn.

It is not advisable, in this latitude, to sow the larger late varieties, as they are so far from maturity when the season for cutting arrives that they are deficient in quality. The earlier varieties do not produce as great a bulk of feed per acre, but it is of very much better quality. For two years we have grown North-Western Dent for the bulk of our field corn, and have found it very satisfactory. It grows from 7 to 9 feet high, and, when planted about May 24, is ready for cutting by September 1. Longfellow, Compton's Early and North Dakota White are other good varieties, all somewhat larger growing, but considerably later, than North-Western Dent. Mercer and Triumph are two other sorts that promise well.

It is not usually safe to sow before the twentieth of May, but seeding should not be delayed after that date. Since corn



Growing Strawberries between the young trees on a British Columbia Fruit Ranch.

Fairbanks-Morse Tractors

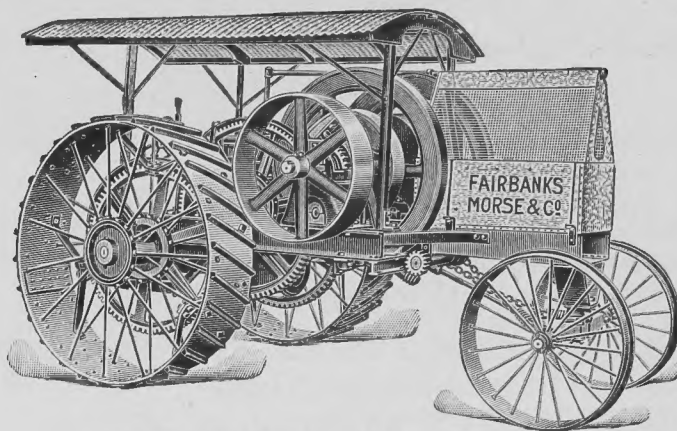
The Tractor with a Strong Pull

Just as Easy and Simple to Operate, just as Efficient and Economical on Fuel as that Fairbanks-Morse Engine in the Elevator in Your Own Town

SPECIAL FEATURES

MADE IN CANADA

Simple
Economical
Reliable
Powerful



FAIRBANKS-MORSE, 25 Horse-Power Tractor

Slow Engine
Speed

(Insuring long life and small repair charges).

Heavy Steel
Gears

(Well covered and lubricated).

Easy to Operate

(One lever controls forward and reverse).

I want your Traction Engine Catalogue by return mail, free.

NAME.....
P. O. N. W. F.

The Canadian Fairbanks, Co., Limited

Saskatoon Calgary Winnipeg Montreal Toronto
St. John, N. B. Vancouver

Fairbanks-Morse Gasoline Engines

are recognized as the STANDARD by the GREAT RAILROADS, LINE ELEVATOR COMPANIES and the LARGEST CORPORATIONS because of their superior design, economy of fuel and certainty of operation.

They cost the most at first, but are the cheapest per year of service and the best to buy in the long run.

We have a few territories untaken and want reliable agents who want to sell the best engines made and who have the ability to demonstrate for a line which has no competition. Mere imitations and different designs sold at lower prices and on longer terms have failed in any way to affect the progress of the FAIRBANKS-MORSE engines, and our factory in Toronto has now double the capacity it had two years ago and is pressed to the utmost to fill the demand for its high grade goods.

planters are not likely to be in general use here for some time yet, the grain drill can be used. A sufficient number of spouts should be plugged up so that the drills will be from 3 to 3½ feet apart. This latter distance allows the cultivator to be used to better advantage. A common mistake is made in sowing corn too thickly in the row. About fifteen pounds is sufficient seed for an acre if it is evenly distributed, when the rows are 3½ feet apart. The stalks should not be closer together in the row than eight inches, or there will be very few cobs formed. If it comes up any thicker than this it should be harrowed out.

The advice is sometimes given to sow corn on the weediest land, as it is an excellent crop to clean land. That depends on the cultivation. If the crop is cultivated as it should be, it is a good land cleaner, but if it is not cultivated it is little better than any other grain crop. This work should start as soon as the corn is planted, and in its early stages should consist in running the harrow over the land every few days until the corn is six inches high. A few stalks will be rooted up, but so also will myriads of weeds which are just starting to grow. The harrow is the cheapest weed destroyer we have if it is used at the proper time. After the harrows can no longer be used, either the one or the two horse cultivator should be put to work, and used as frequently as the other work will allow, or sufficiently often to keep weeds in check, and the soil stirred to a depth of two inches. Cultivation should not be deep at any time and should get shallower as the season advances. This may seem like a lot of cultivating, but if one can keep the next year's crop in mind when doing the work, he will not think the time and labour spent such a loss. Besides destroying the weeds, the cultivation greatly stimulates the growth of the crop.

The most satisfactory method of harvesting the crop is by means of the corn binder, which cuts a row at a time and binds it in sheaves. When several farmers in a district are growing corn, it is

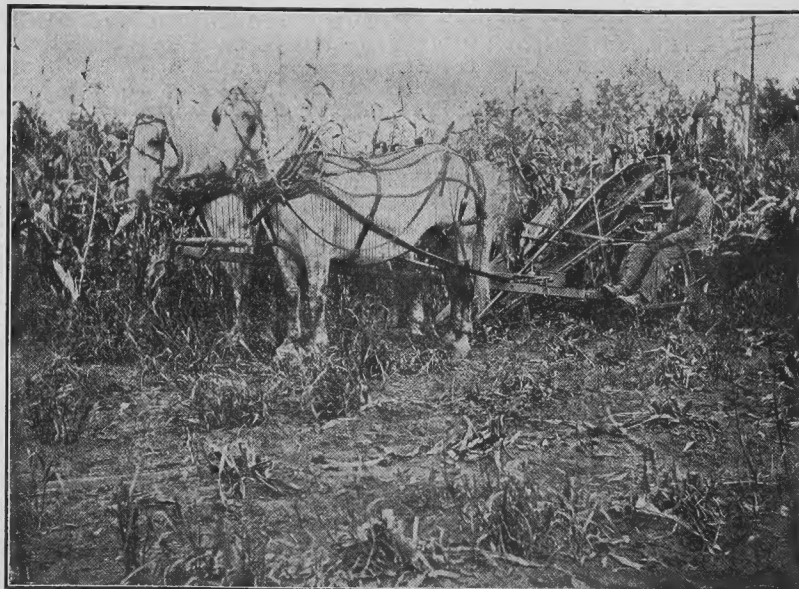
well worth while getting one of these machines. When a corn binder is not available, it is usually advisable to cut by hand, as the ordinary grain binder is far from satisfactory.

The ideal way to handle fodder corn after it is cut is by means of the silo, as it is stored without loss and is available for feeding whenever required. There are few silos in use in Western Canada, but as corn is grown in larger areas, they will surely be more common, as they have been found to be a decided success in this climate wherever they have been given a fair trial.

When corn is to be fed as a dry fodder, it has to be cured by stooking as soon as cut. From 500 pounds to half a ton of corn may be put in one shock, tied firmly near the top with binder twine to prevent its blowing over. It may be drawn to the barn as required for feed during the winter, and fed either whole or after being run through a cutting-box to either horses or cattle.

If the crop of corn has been worked as it should have been throughout the summer, very little work is required to put the land into first-class condition for the following crop. If the weeds have been kept down, there is no object in plowing the land, as this leaves the soil too loose and open on account of the corn roots being turned up. We have found it very satisfactory to sow the next year's grain crop after thoroughly harrowing the land. The corn roots are not disturbed, the soil is firm, and by the end of the growing season the roots have all rotted away and give no further trouble. For the past two years the grain crops that we have harvested from land that was in corn the year previous were more satisfactory than those off summer-fallow.

C. A. Julian Sharman, Red Deer, Alta., the Jersey cattle man, left for England on Jan. 5th. He may bring back some Jerseys with him from the Isle of Jersey.



The Corn Field and the Corn Binder will soon be fairly common sights on many of our Western Canadian Farms.

The Jerusalem Artichoke.

We have noticed that some western papers have printed some circular matter in which the feeding value of artichokes is set forth in very strong terms. There can be no doubt about artichokes having a certain food value, especially for hogs, as well as other classes of stock. It is also a crop that can be easily grown in the West, in fact too easily, for it has such a habit of reproducing without further seeding that it may become a weed. Prof. S. A. Bedford's opinion in this regard will be of interest:

"The Jerusalem Artichoke (*Helianthus tuberosus*), thrives on almost any drained land without much attention to manuring or artificial fertilization. It requires very little cultivation, and once planted there are usually enough tubers left in the ground for next year's seed. They are never injured by frost when left in the ground. We grew them successfully at Brandon for a number of years. There are at least three varieties; only the earliest should be grown here. Late ones produce only small tubers. I would not be afraid to grow them myself, but do not feel like advising others to do so, as one of our native varieties of artichoke is already a bad weed in some parts of the Red River valley, and the imported one may also give trouble if placed in the hands of a careless person. The fact that we always had plenty of volunteer plants at Brandon without planting any tubers in spring showed that it is pretty vigorous."

Do not neglect renewing early, and so avoiding the chance of your subscription being discontinued. One Red Deer subscriber who did that writes us: "I was unfortunate in losing your issue of Nov. 20 containing your blank order form. It was like going home and finding the fire out to have no Nor'-West Farmer."

Cost of Operating Gasoline Traction Engine.

By John A. Macdonald, Cheadle, Alta.

In reply to your Taber correspondent who wants information on the cost of running a gasoline traction engine, I present some figures. My engine is of 45-22 H.P. capacity, and experience shows the following cost for operation:—

Gasoline, 50 gals. at 30c.....	\$15.00
Other oils, grease, etc.	1.20
Engineer and board	4.50
Help and board	3.00

\$23.70

In stubble I haul six 14-inch plows, and drag harrows are well, doing good deep work, well worth \$3.00 per acre. It will take on an average of two hours each day to change shares, oiling, greasing, etc. This leaves us eight hours for actual plowing. In this time we can easily travel 16 miles, or 16 rounds on a half-mile stretch, across 80 acres. Allowing for headlands, this figures at 12.80 acres of plowing per day. Breaking, we pull five plows and a packer, doing 10.67 acres per day of 10 hours. This work is well worth \$4.00 per acre.

Your correspondent is wise in asking your readers to give their experience. He will find that their reports differ from those of the selling agents. I have figured the gasoline high, but this is to cover the cost of delivery, etc. I am looking forward with interest to reading the views of other users of gasoline engines; would also like to see a discussion as to which is the best gasoline tractor on the market. I am not quite satisfied with my own, and, realizing that we cannot do without them, would like to know before changing which is the best. A great many users of gasoline tractors have come to grief, but mostly on account of trying to make their engines do more work than they were intended to do by employing an engine driver instead of an engineer.

A Stumpy Piece.

W. G., Innisfail, Alta., writes: "I have cleared about ten acres. Both the willow and poplar trees were very large and have tremendous roots. I know that the best way would be to take out the roots, but I would require a stump puller which I cannot afford to get. Would timothy grow if sown in the spring or on the top of the snow? How would I treat an acre of it for alfalfa?"

This question is somewhat similar to one answered on page 1451 of our issue of Dec. 20, 1910. We suppose that there is very little or any natural grass on this piece and a fair mulch of loose, de-

composed leaves, etc. Perhaps a catch of timothy might be had. The stumps will no doubt prevent you from using a harrow, but the pioneers in some of the wooded parts of this continent used to cover seed among the stumps by dragging tree tops about so as to cover the seed. We fancy that you could soon spike some trees to a couple of cross pieces and try this plan. It might work fairly well in such a place.

If timothy failed perhaps a seeding of Essex Dwarf rape might produce something. The chances for this, however,

would not be very good unless one could sow the seed just so as to catch such a season of moist weather as would give the young plants a start. If one could get a catch of rape, it would make a lot of feed later in the season for cattle, sheep or pigs.

The poplars will rot quickly, so that in about two years a great many of the roots may be plowed through, but the willows will still be solid. These will likely have to be cut out sooner or later.

Alfalfa requires a good seed bed so as to make a strong root growth before

EVENTS TO KEEP IN MIND.

Convention Manitoba Grain Growers, Brandon...	Jan. 24, 25, 26
Saskatchewan Provincial Seed Fair, Regina...	Jan. 23—28
Saskatchewan Agricultural Societies' Convention and Short Course, Regina	Jan. 31—Feb. 3
Saskatchewan Dairymen's Convention, Regina...	Jan. 31—Feb. 2
Saskatchewan Farmers' Wives' Convention, Regina.....	Jan. 31—Feb. 3
Alberta Fairs Association Annual Meeting at Lethbridge.....	Feb. 1—2
Canadian Clydesdale Association Annual Meeting, Toronto,	Feb 3
Dominion Shorthorn Association, Annual Meeting, Toronto,	Feb. 7
Sask. Grain Growers' Convention, Regina....	Feb. 7, 8, 9
Alberta Provincial Seed Fair at Lacombe.....	Feb. 8—10
Farmers' Short Course, Manitoba Agricultural College, Winnipeg	Feb. 13—17
Manitoba Agricultural Societies' Convention, Winnipeg.....	Feb. 14—15
Manitoba Women's Household Science Convention, Winnipeg.....	Feb. 14—15
Manitoba Dairy Convention, Winnipeg	Feb. 15—16
Manitoba Horticultural Convention, Winnipeg..	Feb. 16—17
Winnipeg Poultry Show, week of.....	Feb. 13—17
Manitoba School Trustees' Convention, Winnipeg,	Feb. 28—Mar. 2
Manitoba Winter Fair, Fat Stock Show, Seed Grain Fair, and Provincial Poultry Show, Brandon,	March 11—17
Manitoba Sheep and Swine Breeders' Annual Meeting, Brandon	March 13
Manitoba Horse Breeders' Meeting, Brandon..	March 14
Manitoba Cattle Breeders' Meeting, Brandon..	March 15
Saskatchewan Winter Fair, Regina.....	March 20—24
Provincial Fat Stock Show at Calgary.....	April 18—21
Edmonton Stallion Show and Bull Sale, Edmonton	April 26—27
Winnipeg Horse Show.....	June 5—10

winter comes, and we would not advise you to try it here.

Farmers See the Central Farm.

The trip of the western farmers to Ottawa afforded an opportunity for many to see the Central Experimental Farm for the first time. Special excursions were made out from the city and an opportunity thus provided of examining the many different divisions of work in progress. In the agricultural and live stock division were seen the herds of the 200-acre dairy farm, consisting of Ayrshire, Guernsey, French-Canadian and milking Shorthorn cattle; flocks of Shropshire and Leicester sheep, and herds of Yorkshire, Berkshire and Tamworth swine. Various feeding experiments with beef cattle, sheep, dairy cattle and swine were under way, all of which were of much interest to the visitors. The different stables and barns at the Central Farm are about as nearly correct as it is possible to have them. They exemplify the latest ideas in hygienic conditions, convenience of arrangement, and of lighting and ventilation.

In the horticultural building was seen the splendid exhibition of fruit that is maintained there. The explanations of methods of producing new fruits that were given was an additional feature.

A flour mill in operation, baking laboratory open for inspection, and samples of many kinds of cereals placed on view were features of the cereal division. At the time of the visit the distribution of samples of grain to Canadian farmers for the improvement of seed was in progress. Analytical work was also in progress on soils, feeding stuffs, well waters, etc., in the chemical division. Cases of insects injurious to farm crops were shown and in the botanical division was a display of the common weeds, stock poisoning plants, and information was given out as to the causes of the diseases of farm crops. Even the poultry section was not missed. A large number of fowls of the different breeds are kept and in interesting experiments are being conducted, making use of different methods of housing and feeding.

Among the buildings on the Farm are the office building, chemical laboratory, conservatory and seed testing house, barn, horse stable, granary and carpenter shop, storage shed, piggery, dairy building, implement shed and root house, sheep house, tobacco house, horticultural building, poultry buildings and yards, biological laboratory and the observatory.

When we consider that some weeds bear seeds at the rate of from 50,000 to 400,000 or more to the plant, the importance of keeping weed plants from seeding can be readily seen.

The Appearance of a Man's Garden is the Measure of his Ideals

FINEST SEED WAREHOUSE IN CANADA

McKENZIE'S FOR THE WEST SEEDS

AGRICULTURE has become a THRIVING and LUCRATIVE BUSINESS ELEVATED to a HIGHER PLANE by a JUDICIOUS USE of PURE SEED. That McKENZIE'S TESTED SEEDS have been a LEADING FEATURE of OUR AGRICULTURAL ACTIVITIES is EVIDENCED by the LARGE BUILDING RECENTLY ERECTED to BETTER CARE for OUR IMMENSE TRADE.

Pedigreed Seed Grain

Our SEED GRAINS are so HANDLED from JUDICIOUS SELECTION, CULTIVATION, and ENVIRONMENT that the CONSTITUTIONAL VIGOR and HIGH GERMINATING POWER make them a SUPERIOR TYPE.

GROWN in SMALL PLOTS, from HAND SELECTED, HIGHEST DEVELOPED, FULLY MATURED KERNELS of STRONGEST VITALITY, SUCH as INHERIT the REAL, STRONG, ROBUST SEED LIFE NECESSARY in this WESTERN COUNTRY to PRODUCE ABUNDANTLY.

Price per Bushel F. O. B. Brandon Calgary

McK's Gold Standard Red Fife Wheat	\$1.65	\$1.90
Special Strain Banner Oats	.90	1.05
Six Rowed Mensury Barley	1.10	1.10

Deduct 5c per bushel for quantities 10 bushels or more.

Grimm's Alfalfa

IT RESISTS DROUGHT. IT RESISTS EXTREME COLD.

GRIMM'S ALFALFA is adapted to such a WIDE RANGE of SOIL and CLIMATE that it has LEAPED into PROMINENCE with AMAZING RAPIDITY.

It is UNUSUALLY PRODUCTIVE and will SURVIVE WINTERS where most other varieties kill out.

OUR STOCK of GRIMM'S ALFALFA is GENUINE MONTANA GROWN RECOGNIZED as the SAFEST, STRONGEST VITALITY, and BEST for the CANADIAN WEST.

PRICES F. O. B. BRANDON—11b POSTPAID, 45c; 10 lb. \$3.50; 25 lb. \$8.50; 50 lb. \$16.35; 100 lbs. \$31.50

PRICES F. O. B. CALGARY—1 lb. POSTPAID, 45c; 10 lb. \$3.50; 25 lb. \$8.50; 50 lb. \$16.50; 100 lbs. \$32.00.

EVERYTHING FOR THE GARDEN, FIELD, LAWN

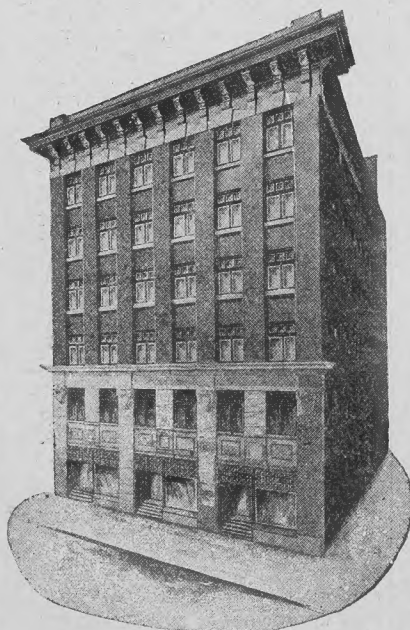
PURE
RED
FIFE

ORDER EARLY

The scarcity of PURE SEED GRAIN and the present enormous demand prompts us to suggest that customers ORDER AT ONCE and eliminate any possible disappointment in securing seed.

Every Seed a Live One

Every Variety Tested



McKenzie's New Seed Warehouse, Erected 1910

CATALOG
Drop a Post Card for the Finest Seed Catalog in Canada

A. E. McKENZIE CO., LTD., BRANDON, MAN. CALGARY, ALTA.

Seedsman to Western Canada



THE NEW Massey-Harris Engine Gang Plow THE ONLY ENGINE GANG WITH Self-Levelling Bottoms

THIS Engine Gang stands in a class by itself. The originators of the **New Massey-Harris** did not take the principles laid down by any other manufacturer as a foundation. Their own long experience in Plow Building was employed, a plow was built, embodying a number of features important for **Proper** plowing, taken to the West and thoroughly tested. This test proved that the New Engine Gang lived up fully to the standard of the Company which makes the highest class machinery for Canadian Farms.

Easily attached to any
Engine

Light Draft

Convenient to handle

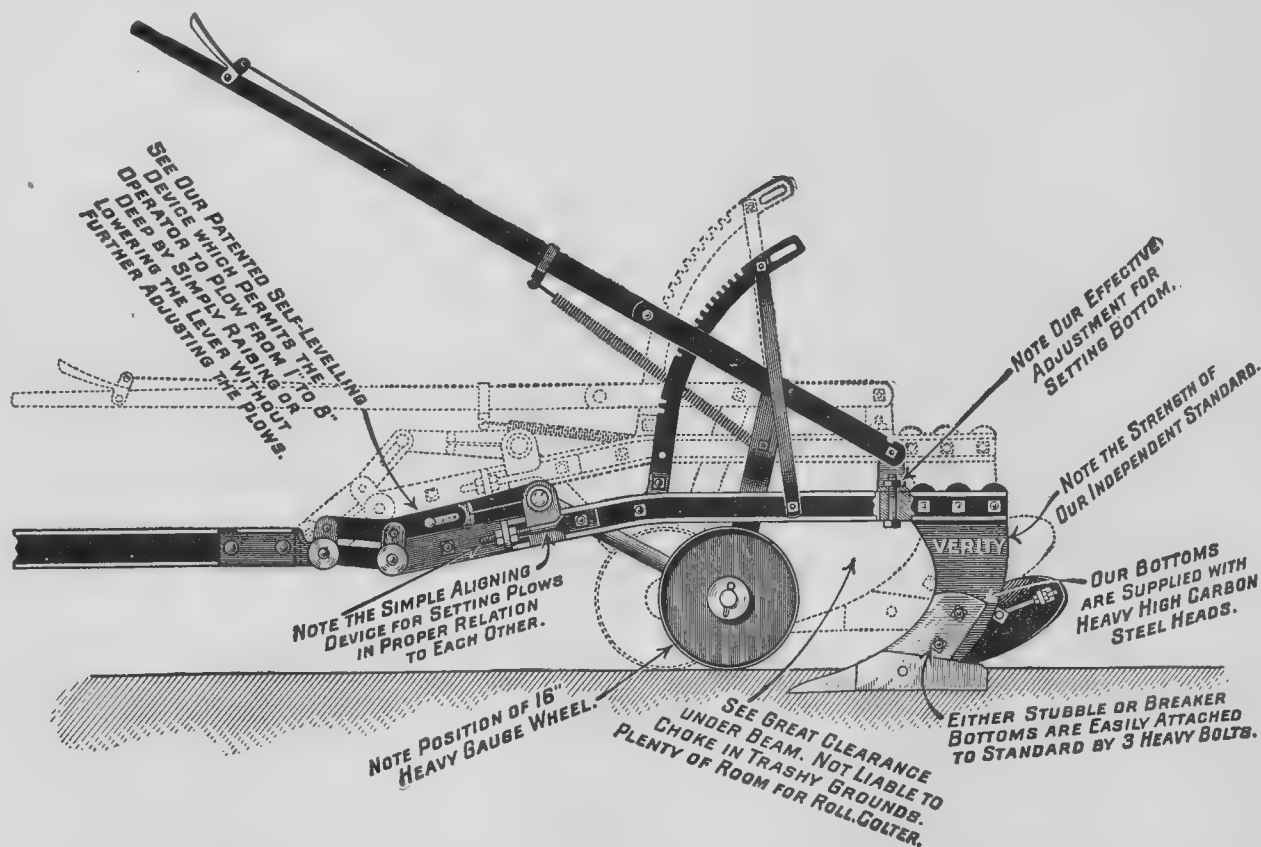
First class work under
all conditions

Strongly built

Seeing is believing!

We can show You!

Every "MASSEY-HARRIS"
Feature is a Superior
Feature.



Massey-Harris New Line Gasoline Engines THE "OLDS"

WE have secured the Sole Sales Agency for the well-known "OLDS" Line of Gasoline Engines, in Canada. Both Stationary and Portable Engines in all standard sizes, can now be supplied.

IT is unnecessary to mention that the "OLDS" is generally considered the best Gasoline Engine offered to the trade on the North American Continent.

See our Engine Gang and working model of "OLDS" Engine during your Bonspiel visit
ON THE MARKET SQUARE, WINNIPEG

THE PLOWING ENGINE

OF 1911

"There is one man who always makes good--the man who converts all Occurrences into Experience"

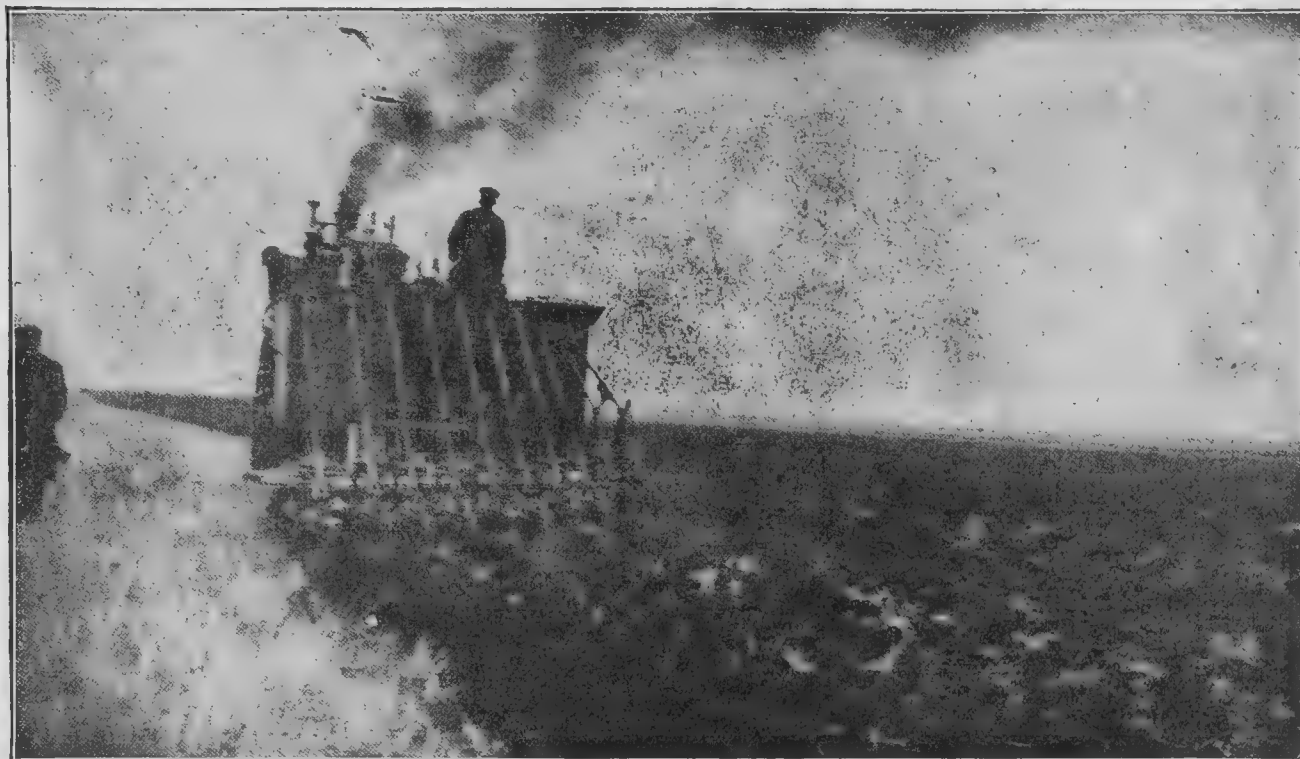
As a practical farmer, your past experience reminds you of a certain thing that did NOT pan out, and that frequently the most direct road to **THE RIGHT THING** was through the experience in **MONKEYING WITH THE OUTFIT**.

You **NOW KNOW** what kind of an engine it requires to stand the strain of plowing.

You **NOW KNOW** what kind of an engine will deliver the proper amount of steam on a reasonable percentage of coal.

You **KNOW** that some engines are perfect gluttons in their consumption both of coal and water, while others give the assurance in every stroke of the piston that they are delivering power in proportion to their fuel and water supply.

But **DO YOU KNOW** that the **AMERICAN-ABELL PLOWING ENGINES** are designed and constructed in every joint, bar, beam, wheel, gear, and stay-bolt for plowing purposes? Any one of our large number of satisfied customers will tell you that



The purchaser of
an American-Abell
Plowing Engine is
assured of an En-
gine that will meet
every Traction
Plowing require-
ment.

THINK IT OVER,
but let us make your
THOUGHTFLOW
FREELY by sending
you a catalogue that
covers every detail.

The above plowing scene shows one of our new 28 horse power Simple Special Plowing engines at work in the Red River valley, plowing heavy Gumbo soil, seven inches deep with three inches of frost in the ground, pulling ten 14-inch plows.

This engine is of the tricycle design, rear mount, equipped with our new balance valve, and is of the same design as our 32 horse power Cross Compound, rear mount, which proved itself to be not only the most popular but the strongest and most efficient plowing engine in Western Canada in 1910.

This engine is worth every dollar of the thirty-five hundred dollars it costs you. It will do anything that any plowing engine will do, and will do more of it at less cost. It is a pleasure for us to write and talk about our engines, because they always make good in the field, and in the belt. Our customers testify that our line of plowing engines have not only made steam plowing a success, but have made it a pleasure for the owners and operators.

With the American-Abell engines you can safely contract a given amount of work and you can bank on the engine doing the work because it is well built of good material. It is well designed. It has a simple valve gear. It has the nearest to a perfect balance valve. It is a beautiful design and is sold with an honest desire to suit and serve the purchaser.

OUR CREED:

"We believe honest goods can be sold to honest people
by honest methods"

WHEN YOU COME TO

THE BONSPIEL

MAKE YOUR HOME WITH US WHILE IN WINNIPEG

American-Abell Engine and Thresher Co., Limited

Winnipeg

Regina

Saskatoon

Toronto

Calgary

Edmonton

Siberian and Other Alfalfas.

A Lively Letter from Saskatchewan and
a Reply by Prof. Hansen.

Through the courtesy of Prof. N. E. Hansen, of the South Dakota Agricultural College, we are permitted to publish the following correspondence. It discusses varieties of alfalfa to which some extended reference was made in an article on Prof. Hansen's work that appeared in our issue of Nov. 5. The correspondence follows:

The writer from Saskatchewan writes Prof. Hansen:—

"I have your bulletin No. 150 and shall shortly study it carefully. I am with you in the conviction that alfalfa will yet grow within the Arctic Circle. There is nothing unreasonable in the conviction. Tomatoes came from Chili: I have grown bushels of them here, splendid ones, seeded in the open, and sown just as one would sow peas. Further, I have for the past two years ripened North-western hard dent corn here. Even last unfavorable season I managed to get a few crops from my experimental patch planted for seed, readily ripened in 1909, which was a very fine season. There is no reason on earth why the corn belt should continue so far south. But such matters involve time and patience; and the philosophy of to-day is to go along the line of least resistance just as quickly as possible.

"So far, the alfalfa which has done most successfully all over Canada is Grimm's. Our Dominion experimental farms have wasted a lot of valuable time fiddling away with the delicate varieties, many of which, from the standpoint of their natural source, were pre-doomed to the abject failure that resulted. At the same time, I am persuaded that you have solved the proposition with your Siberian strains; and a few of us will get some considerable stuff from you in the spring.

"You will be glad to know that I have been growing alfalfa along the street in front of this office, up against my fence, for the past three years, much to the astonishment of people from the United States. Three years ago, I could have, without the slightest difficulty, persuaded every man, woman and child that nothing would grow here except wheat, oats, barley and flax. Last year I successfully grew about fifteen different fodder crops and this year about the same number. The proposition here is not what will grow but what won't grow if properly handled. Meanwhile, wheat is king,—the devil!"

Answer by Prof. Hansen.

"In reply to your favor of the 24th inst. tomatoes and dent corn are annual plants. Through the winter they are not plants, but seeds, hence the question is entirely different from that of alfalfa, which must endure the winter as plants. But of course the top covering of snow which usually comes obscures the law of acclimatization which I have

34 Cents a bushel
3
\$1.02

Yes, that's right! It takes less than three bushels of oats at 34 cents a bushel to pay for the Nor'-West Farmer for a whole year. Isn't it likely to benefit you and your family much more than that amount during the whole of this year?

outlined in my alfalfa bulletin. If the ground were bare regularly from snow for a time during the extreme cold weather, my theory of the practical impossibility of acclimatizing any plants, by man, would soon be generally accepted; but as it is people who deal mostly with field crops which are mostly annual in their nature cannot get through their heads this far deeper philosophy of the real test of the hardiness of plants enduring for many years.

"As far as Grimm's alfalfa is concerned, there are no doubt regions where it will be found of value, but as it is a native of southern Germany where fine European grapes and peaches ripen in the open air, I do not believe that it will hold its own at the extreme north. Of course, if a hardy plant should be developed from this stock, I should welcome it as heartily as anyone. But if so, it will be a single solitary instance among all the failures with alfalfa at the north, since alfalfa was first brought from Media in the fifth generation before the Christian era.

"Your Dominion experimental farms have done magnificent work and Dr. Wm. Saunders and associates have made for them lives a permanent and great place in the history of Canada.

"As far as the alfalfa problem is concerned, you will understand that all the experiment stations of Europe and America have been working along this old line of trying to get hardy alfalfa from tender stock.

"My alfalfa platform is built on a

totally different plan. I deny the possibility of getting a hardy alfalfa by acclimatizing the tender alfalfa. I do admit that nature can do the work, but she takes many thousands of years. For example your Manitoba maple is the same botanical specimen as the box-elder of our southern states, but at the north, the Manitoba trees will be alive while the southern trees will be dead. So you see the botanical name tells only half of the story; and it does not tell the most important part of the story so far as the horticulturist is concerned.

Since this is a free country, we can all have our own ideas about how to secure hardy alfalfa. I am simply striking out along a new line and feel confident of ultimate success because it is taking advantage of the work of nature through thousands of years.

"Some of these Siberian alfalfas are now being tried in various parts of Canada in a limited way at the Government experiment stations and I look for speedy results, providing that we have winters that are really a fair test. I mean winters with extreme cold and no snow on the ground. If the alfalfa plants are protected by the deep snow all winter, that is no test at all. Or an ice crust forming over the plants in early spring is a severe test.

"Remember that our old stock of alfalfa dates back to the mild region between India and the Mediterranean sea. A plant which is a native of the region where the monkeys climb the palm trees is hardly a safe foundation for the al-

falfa fields of the Canadian North-west. "Remember also that land that can raise good alfalfa is easily worth one hundred dollars per acre."

Another Prospective Wheat
Producer.

In our issue of Nov. 21 we referred to the big wheat fields to be opened up in Africa. We note that E. C. Parker, Chief of the Bureau of Agriculture for Manchuria, has also been giving out some information relative to the wheat growing possibilities of that country.

The area of Manchuria is approximately 360,000 square miles, with an estimated population of from 10 to 12 millions. The present annual production of wheat is about 10 million bushels, which might be increased, Mr. Parker thinks, to from 300 to 400 million bushels, even with the primitive methods of native cultivation. The soil and climate are as favorable for wheat production as in the valley of the Mississippi. The native wheats are chiefly of the bearded and smooth chaff type; but life, blue stem and Canadian club types are also seen. Although the region is naturally favorable for wheat production, the crop has never been extensively grown, chiefly because the yield of wheat is less per unit than that of millet, sorghum, or maize, and these foods are better adapted to the standard of life and the purchasing power of the Chinese family. Of late years, however, there has been a noticeable growth in the consumption of wheat among the Chinese throughout China, and in Manchuria in particular a strong demand for wheat flour has arisen since the Russo Japanese war. At first this demand was supplied chiefly by the United States of America, but in 1909, on account of the high price of American flour owing to the depreciation of silver and of the increased production of the Shanghai and Manchurian mills, the import practically ceased.

An Ideal Summer Fallow.

A subscriber at Idalene, Sask., writes us: "What is an ideal summer fallow? I have 50 acres to fallow the coming summer, and as it is my first experience at it, I would like to know the best methods. This is a dry country, and the soil is very heavy and sticky."

The best advice we can offer our subscriber is to write Angus Mackay, Superintendent of the Experimental Farm at Indian Head, Sask., asking Mr. Mackay for a copy of the report of the Experimental Farms in which he gives his views on this question. The article referred to is too long for us to reprint or summarize just now. Also write the Department of Agriculture, Regina, for the recently issued bulletin on soil culture containing papers by Hon. W. R. Motherwell.

A study of these two will head our friend in the right direction.

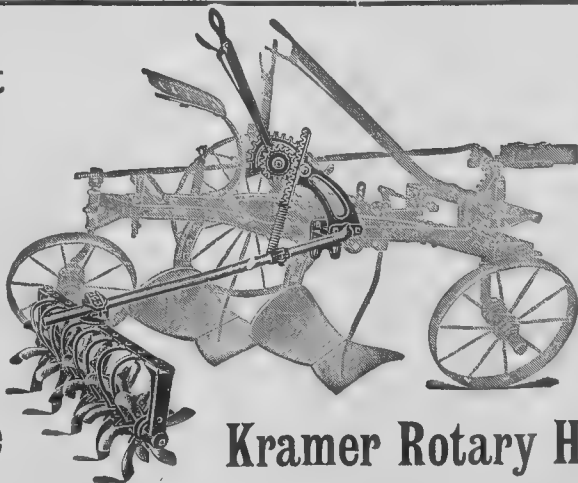
No Rain—But

The success of any crop depends far more on the care that is taken of the fall and winter precipitation than on the spring rainfall. You should never take chances on the "Summer Showers." Your land always gets a soaking in Fall and Winter. Mulch the soil at seed time and the moisture will remain to do its work.

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See your nearest Implement man or write to

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is made of Trinidad Lake asphalt. Doesn't crack, rot, or break. Gives lasting protection to your home, barn, and all other buildings.

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breaks up and pulverizes plowed sod or stubble and gives you the most for your money, because it does the best work, in the least time, with the least strain on your horses—is the lightest in weight and draft and the lowest priced Harrow made. The construction is entirely of steel and iron, in sizes to suit YOU—3 to 17-1/2 feet wide. Let us send you our combined catalog and booklet.

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Winnipeg

Spring Wheat Tests at Brandon and Indian Head.

Eight varieties of spring wheat have been under test at the Brandon Experimental Farm for five years now, their average yield for 1910 being 29 1/4 bushels per acre. The varieties under test, yield and time for maturing are given in the following table:

Number	Variety.	Bearded or beardless	Average yield for five years. Bus. lbs.	Average days maturing for five years. years	Yield in 1910. Bus. lbs.	Days maturing in 1910.
1	Preston	Bearded	42 58	111	39 40	108
2	White Fife	Beardless	41 28	117	45 40	113
3	Red Fife	Beardless	41 16	115	40 40	110
4	Pringle's Champlain	Bearded	41 12	111	37 30	108
5	Bishop	Beardless	40 2	109	44 50	104
6	Riga	Beardless	39 6	109	39 20	105
7	Huron	Bearded	38 4	112	29 50	109
8	Stanley	Beardless	37 58	112	36 20	108
	Marquis	Beardless			42 40	106

Marquis wheat has been tested for only three years, but has given an average yield of a little better than 45 bushels per acre for that period, with 44 3/4 bushels for Preston, 42 3/4 for White Fife and 40 3/4 bushels for Red Fife for the same period.

The average yield of seven varieties at Indian Head for the past five years are given in the following table:—

Number.	Variety.	Bearded or beardless.	Average yield for five years. Bus. lbs.	Average days maturing for five years. years	Yield in 1910. Bus. lbs.	Days maturing in 1910.
1	Huron	Bearded	40 28	127	54 40	134
2	Preston	Bearded	38 8	123	51 20	134
3	White Fife	Beardless	37 58	129	49 40	134
4	Bishop	Beardless	37 46	125	51 20	134
5	Stanley	Beardless	35 4	123	52 ..	127
6	Pringle's Champlain	Bearded	34 16	125	49 40	134
7	Red Fife	Beardless	32 42	129	43 ..	127

At this station Marquis wheat has been tested for four years, and has given an average yield of nearly 41 bushels per acre for that period, as compared with 40 bushels for Huron and 28 3/4 for Red Fife. Last season, a five-acre field of Marquis gave a yield of over 53 bushels per acre, and a field of six and a half acres gave a yield of over 44 1/2 bushels per acre. These were the heaviest yields of wheat on the Indian Head Farm this season. Kubanka, one of the best of the durum wheats, has been tested during the last four years, and has given an average yield of 35 bushels 20 pounds per acre.

This Year's Treatment After Flax on Breaking.

By John Burris, Gull Lake, Sask.

Having seen in the Dec. 5th issue of the Nor'-West Farmer your answer to a Mazenod farmer who wants to know how to farm land that was broken last year and sown to flax, I wish to give my advice, gained from experience.

This is a very important question just now. There are thousands of acres in this district that were broken last year

and sown to flax and many more thousands in other newly settled districts.

Double disc this land and see that the half of the disc that is lapping over the part that has been disced cuts through or nearly through, the sod. You may not be able to harrow this ground, owing to the amount of flax stubble left on the land. Harrow if you can with profit. Seed it to wheat or oats, using a disc

drill, and be sure to get the seed well into the soil. Then roll immediately. My experience has been that, if reseeded to flax, about one-third will break off and fall to the ground before harvesting time.

This land is likely to be in very bad condition for growing a crop this coming season owing to the fact that the flax grew as long as the frost allowed

it to grow, and sapped the moisture from the sub-soil.

A good crop cannot be expected from this land however it is farmed if the coming season should be dry. But should the coming season be wet, a fair crop will be obtained anyway it is farmed. But with a normal amount of rainfall I think better results will be obtained by double disking than by plowing, as the plowing is more apt to dry out. Besides, it will take more work to put the ground in order after plowing than if it had not been plowed.

I had rather risk drilling seed into the stubble without any previous work than to plow this land this spring.

Where oats were sown on spring-breaking is a good place to sow flax this year. A few oats will unavoidably grow in the flax, but one-third more flax to the acre will be reaped than where flax land is reseeded to flax.

Practically all European countries have seed control stations, varying in number from one in Italy to twenty-eight in Germany. These stations have established fixed standards to which seeds must conform to be salable.

A Note of Warning.

The principal of the M. A. C. sends us the following letter for publication:—

The Manitoba Agricultural College desires to issue a note of warning to farmers and dealers importing grain into Manitoba to be used for feed or seed. This year considerable quantities of grain are being brought into certain districts, and much of it is believed to be badly infested with the seeds of weeds of a very noxious character. The weed problem already has become a very serious one in many districts through weed seeds being introduced to the land without the knowledge of those introducing them.

From samples sent recently to the College, and examined by the Field Husbandry Dept., it has been found that the present situation is alarming. A sample of oats recently imported to one of the towns in south-western Manitoba was found to contain seeds of the following weeds:—Ball mustard, wormseed mustard, bladder campion, false flax, peppergrass, cinquefoil, curl dock, shepherd's purse, wild buckwheat, lamb's quarter and, redroot pigweed.

Not only are many of the weeds mentioned in this list of a very noxious character, but some of them are new to this province and for that reason they are the more to be guarded against.

An ounce sample, taken from a shipment of flax received at a town in northern Manitoba, was found upon analysis to contain 52 false flax seeds, and nine other species of weed seed.

The College will undertake to report, free of charge, upon any samples of grain sent to it for weed seed examination, or germination tests.

Eradication of Sow Thistle.

By a Brookdale, Man., Subscriber.

In the spring of 1905 I seeded a piece of land to timothy, with oats for a nurse crop. I am sure there was no sow thistle in this field then, neither any place else on the farm. In the summer of 1906, I noticed two or three plants growing but did not know what they were. However, when they flowered I pulled them so they would not seed. In 1907 I was appointed weed inspector. When I got my weed manual I studied it and found that these plants were sow thistle. I made vigorous attempts to get rid of the pest, tried various means, but all of no use.

After getting the timothy crop off in 1908 I plowed the field up. That was a dry year and where the sow thistle appeared I plowed a little deeper than where there was none, to make sure that I got under all the roots. I disced the field well and used the drag harrow thoroughly. By doing this some of the sow thistle was gotten rid of, but I found out afterwards that there were roots still deeper than I had plowed. In the spring of 1909 I sowed this field to wheat. Some stalks of sow thistle appeared and made a vigorous root growth. I pulled any that blossomed and after the wheat was taken off plowed the ground deep and harrowed it two or three times. Last spring a part of the field was sowed to barley, early. Part of the field where the sow thistle appeared was left. This was manured, disced twice and planted in potatoes with a hoe, in hills. This patch of about three-quarters of an acre reserved for the potatoes had considerable sow thistle in it. When the potatoes were up large enough to cultivate I went after them with a hoe. Where there was sow thistle I used a manure fork, dug out the roots, shook out the roots and threw them far enough away so that I would not bury any of them. When I came to a hill of potatoes I lifted it out of the way with the fork, set it to one side until I got the ground dug, then would set it back and tramp the ground firmly around it, dug on again until I came to the next hill and do the same with it, and so on until I had finished the patch. Some places I had to follow the roots into the ground to a depth of the fork tines and in some instances even to three times the depth of



A Case threshing outfit at work on farm of J. C. Livingstone, New Warren, Sask. Outfit owned by G.H. and R.L. Bell.

the fork tines, to make sure that I had removed all the roots from the ground. I finally finished the patch in this way and left it until digging time, but careful as I had been some roots were left in the ground and sprouted again. But when I dug those potatoes in the fall I was very careful to get those sprouts out. Some of them had grown very fast and had spread their roots four feet long, dry as it was last summer. I made sure to get all of the roots out of the ground this time. The potato hills that had been lifted did as well as those that were hoed.

Now, there is one thing that I discovered about sow thistle. The first year's growth of roots is white and they run about two or three inches under the surface of the ground. The second year these roots turn to a reddish color. The third year they turn a darker red, penetrate a certain depth into the ground and wither and die. I think I have solved the problem of getting rid of sow thistle. It is a tedious way but is the only sure one of getting rid of this most troublesome of all weeds. I will wait until next summer to see what sort of success I will have and report results.

Testing the Seed.

No doubt most of the seed grain of this country will have a high percentage of viability this year, but it will do no harm to remember that there are seed testing laboratories at Ottawa and Calgary, and that conclusive information can be obtained by sending a sample to test to either of these points. Also information can be had as to purity in so far as weed seeds are concerned. With purchased seed this latter is very important. Address Seed Laboratory, Seed

Branch, Ottawa, or Seed Laboratory, Calgary, as the case may be.

This is the right time of year to fan the seed grain.

If seed potatoes are being carried over in the cellar, care should be taken to keep the temperature low. The vitality of seed potatoes is lowered by repeated sproutings. As a rule pitted potatoes are better for seeding purposes than those wintered in cellars.

HA! HA! HA!

"Well, I'm blest! So this is one of those so-called metal roofing guarantees I've read about," laughs the Wise Man of Metal Town.

"It certainly is a good joke, for it doesn't really guarantee anything to anybody, and isn't legally binding. Ask your own lawyer and you'll find I'm right."

"Stripped of all its exceptions and provisions I don't see how anyone could be serious about it."

"I go by what I know has been done, not by what is promised. For instance, I know that 'Eastlake' Metallic shingles have been in use for twenty-five years right here in Toronto, where they're made, and that those same shingles are in perfect condition now."

"Just listen here a minute. I'm getting serious now. The Metallic Roofing Company began to make metallic shingles years before anyone else in Canada. They were made right when they were first made. The Metallic Roofing Company have been continually making new designs for ceilings and walls, fronts and cornices, but as for shingles they have never seen an improvement on the 'Eastlake' steel shingles which have been made, laid and proven for twenty-five years."

"I've noticed that most metal shingle manufacturers change their pattern so frequently that I'm led to believe they, themselves, haven't much confidence in their own goods. Yes, they even change the name to cover up some weakness in a previous product."

"TWO OTHER PERSONS' SAY-SO'S"

The Metallic Roofing Co., Limited,
Toronto.

Simcoe, Ont., April 9th, 1908.

Dear Sirs:—"We have handled your 'Eastlake' Shingles for nearly a quarter of a century. They have been on the Court House, Free Library and other public buildings in this town for 18 years. We have used very large quantities during the past 25 years, and they have always given first-class satisfaction, and have never required any repairs."

(Signed) MADDEN BROS.,
Tinsmith and Hardware Merchants.

The Metallic Roofing Co., Limited,
Toronto.

Lucknow, Ont., April 9th, 1908.

Dear Sirs:—"I take great pleasure in testifying to the good qualities of your 'Eastlake' Shingles. We put your painted shingles on our Town Hall here in 1885, 23 years ago, and although they have only been painted twice since that time they are in good condition yet. I consider the lock on the 'Eastlake' the very best, and believe that a roof covered with the galvanized 'Eastlake' will last for ever."

(Signed) THOS. LAWRENCE,
Hardware Merchant.



"I'm prejudiced, you say? Of course I'm prejudiced, but it's a prejudice founded on years of active use of the metallic goods made by The Metallic Roofing Co. It's an old man's prejudice based on a long experience."

"Write for booklet which tells more about 'Eastlake' Metallic Shingles. They are sure proof against fire, lightning, rust or weather in all climates. They are the easiest and quickest to put in place and the most durable when laid. If you send the measurement of any roof an accurate estimate of cost will be sent free."

—The Philosopher of Metal Town.

The Metallic Roofing Co.

Limited

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Agents wanted in some sections. Write for details, mentioning this paper.

made of heavy steel tubing electrically welded into one solid piece. The Peerless Gate, like the Peerless Fence, saves expense because it never needs repairs. We also make poultry, lawn and farm fences of exceptional strength. Write for free book.

Floor plan of Implement House

Seed Grain Fair at Springfield.

The secretary of the Springfield (Man.) Agricultural Society sends us a report of the Seed Grain Fair held there on Jan. 6. Messrs. Harrison and McMillan, of the Agricultural College, did the judging. After this was finished the meeting was called to order by the president, Mr. W. Brett. A lecture on "Soil Preparation" was delivered by Mr. Harrison, and one on "Mixed Farming" by Mr. McMillan, to a very attentive audience. Prizes were awarded as follows:—

Special, by Ogilvie Milling Company, for Red Fife—1, W. R. Dowse; 2, J. R. Morrison. For seed grain, prize given by society.—Red Fife Wheat—1, Dowse; 2, A. H. Dale; 3, Morrison; 4, A. Cairns. For any other named variety—1, Dale (Stanley); 3, J. Lonsbery (White Fife). For oats—1, Dale (Danish Hand); 2, F. Thomson (Banner); 4, A. Cook (Sheffield Standard). For barley (6-rowed)—3, T. H. Smith. For flax—1, A. Van Slyck; 2, Dowse; 3, D. C. Gillespie. For sheaf of green corn—A Van Slyck.

The Wrong Way to Conduct the Seed Business.

A firm in Edmonton has invented a new "wrinkle" in the seed business that should not be too widely copied. Geo. H. Clark, Seed Commissioner for Canada, in a recent government bulletin, tells how the little game was carried on. He says:

"Few reports filed by magistrates who are called upon to deal with complaints under the Seed Control Act furnish more conclusive evidence of wrong-doing on the part of grain merchants who sell seeds than is contained in the report from the magistrate's chambers at Sherbrooke. When called before the court, the defendant, who conducts a local seed business in a small town adjacent to Sherbrooke, produced quotations which he had received on a printed form from the Alf. Denis Company, Ltd., of Edmonton, Alberta, on which printed form was advertised, in red typewriter type, oats 'for seed, English Abundance, Early Swede, Banner,' at 45 c. per bushel, f.o.b. Fort William. On these representations and quotations, the defendant had ordered by telegram 1,200 bushels English Abundance seed oats. In due time the oats were delivered in bulk in C.P.R. car, No. 20,626, the invoice reading, in part, '40,800 pounds seed oats, English Abundance.' Further investigation revealed the information, from the records of the grain inspection at Fort William, that this car-load of so-called seed oats had been loaded out on the order of a prominent Winnipeg grain merchant, who put in a warehouse receipt to the Consolidated Elevator for 1 Canada Western oats, to be shipped to the order of A. Denis Company at the Quebec address. This car was taken from an ordinary bin of 1 C. W. oats and specially cleaned by the usual screens of the Consolidated Elevator. The grain inspectors had no knowledge that it was wanted for seed, neither was anything said about its being English Abundance seed oats. The grain merchants who had sold this commercial grain, representing it to be seed of a definite variety, were surely in possession of the information that all commercial grain contained in elevator bins at Fort William consists of mixtures of many kinds and varieties. In the work of seed inspection in the province of Quebec western grown oats are commonly found exposed for sale for the purpose of seeding under definite variety names, the name of the variety given being the one which at the time is the most popular within the district and recommended by the experimental farms. Inquiry usually elicits the information that such stated variety had been ordered in good faith by the local seed vendor. It is seldom, however, that seed inspectors are able to procure the information necessary to enable them to trace the origin of the seed. The information obtained from this shipment is presented as a sample of what is believed to most commonly occur when seed dealers in eastern Canada purchase seed grain from grain merchants in-

stead of seed merchants, and as a warning to the farmers, in Quebec in particular, that if they are to obtain good results from their grain crops they must cease to depend on such importations of seed grain, which are usually contaminated with noxious weed seeds and consist of a mixture of many varieties that will not ripen uniformly."

Lesser Slave Lake Agricultural Society Holds Successful Fair.

Mr. G. Butler, Grouard, Alta., sends us, by request of Geo. E. Martin, secretary, Lesser Slave Lake Agricultural Society, a list of the prize-winners at the first annual fair held under the auspices of that association. The exhibition was held at High Prairie, Oct. 21, on the park-like grounds in the vicinity of the Prairie River School House. Classes provided for horses included sections for heavy draft, general purpose, saddle horses, saddle ponies, carriage horses, brood mares and foals. Prizes were given for registered Shorthorns, grade cattle, fat cattle, team of oxen, sheep, Berkshire and Tamworth hogs. Poultry prizes were given for geese, turkeys, Buff Orpingtons, Plymouth Rocks, Brown Leghorns and grade fowls; also for pigeons, eggs and butter. The grain show included winter wheat, spring wheat, oats and barley. There were 18 classes for vegetables, a creditable display of fruits and preserves, bread, cakes, etc., school exhibit, a nice lot of ladies' work, some oil paintings, flowers and leather work. It is interesting to note the work of this pioneer agricultural society in the Peace River country.

An Alfalfa Question.

A subscriber at Piche, Sask., writes:—"If one sows alfalfa seed in the spring, will it come up the same fall ready to cut, or do you have to sow it one spring and it comes up only the following year fit to cut?"

If alfalfa does well the first year, it will make quite a growth that season, but one should never expect a crop of hay from it that year. It is generally well to cut it over about the end of July, so as to prevent the volunteer weeds from seeding, but the alfalfa should always be allowed to go into the winter with a good top growth, so as to catch the snow.

Allan Campbell, of Brandon, writes us very enthusiastically in regard to a potato planter invented and patented by John Sieffert, of that place. The planter is said to "consist of a hopper fixed on the finger bars of an ordinary mower, the potatoes being automatically cut, planted and disced in." It is further claimed that "this planter can sow its eight acres a day."

Word reaches us of a young man being poisoned by gas in a well in Saskatchewan. Cases like this come to light every now and again. This is too bad, especially seeing that prevention is so easy. Some wells are natural collectors of carbonic acid gas. The soil about them is perhaps impregnated with gas generating substances. The gas gathers in the well; somebody goes down, suffocates and dies. The preventive action is to lower a lighted lantern at the end of a rope before anyone descends. If it continues to burn brightly, there is lots of oxygen in the well; if it goes out or burns dimly, it is a dangerous place to go.

North Dakota state legislature will be asked to provide some advanced legislation in favor of the country boys and girls. At a meeting recently held in Fargo, it was decided to ask for legislation requiring that agriculture and domestic science be taught in all elementary schools in the state after Sept. 1, 1913, and that all teachers offer these subjects to secure certificates after Sept. 1, 1912. There is said to be little doubt but that the recommendations will be embodied in law by the coming legislature.



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CHATEAU BRAND

Little children will quickly learn to pick out Clark's Concentrated Soups at the store, because of the picture of the "Chateau" on the label.

And these are the soups they will ask for, because Chateau Brand is the soup the children like.

Get a tin at your grocer's.

Wm. Clark, Montreal

Manufacturer of High Grade Food Specialties.

The Proof of Quality
FIVE ROSES FLOUR
"MAKES GOOD" ON BAKING DAY
"Unbleached yet white as snow."

Western King Overalls and Shirts

Are Bigger, Better Made, Better Finished, and Wear Better

These Garments

cost more to make than most others, but we put this extra expense into them in order to have the best.

Money cannot buy better Overalls or Shirts for the workingman. They are big, roomy and comfortable, and sell at reasonable prices.

Your dealer will get them for you if you insist, or we will forward, charges paid, on receipt of price.

The Western King Garment Company
McDermot Ave. Winnipeg

THE NOR'-WEST FARMER

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All advertisements estimated on the agate line—14 lines to an inch. A column contains 180 lines.

Copy for changes in advertisements should be sent in not later than the 25th and 10th of the month to ensure classified location in the next issue. Copy for new advertisements should reach the office by the 27th and 14th of each month.

TO OUR SUBSCRIBERS.

It is the intention of the publishers of The Farmer to admit into its columns none but reliable advertisers, and we believe that all the advertisements in this paper are from such parties. If subscribers find any of them to be otherwise, we will esteem it a favor if they will advise us, and we will at any time give our personal attention to any complaints that we receive. Always mention this paper when answering advertisements.

LETTERS.

Either on business or editorial matters, should be addressed simply "The Nor'-West Farmer, Winnipeg, and not to any individual."



A GOOD IDEA.

We understand that a plan is on foot to introduce to the local branches of the Manitoba Grain Growers' Association an agenda of topics, suggested as profitable for discussion. The idea is that the meetings of these organizations should be made as largely educative as possible, and that by giving right direction to the discussions, not only will the most profitable subjects be considered, but an added benefit will accrue by the stimulating of members—especially younger members—to take a more prominent part in public debate.

The plan is an excellent one, and it is to be hoped that in framing a programme the committee in charge may be fortunate in selecting the right topics.

This is just the kind of thing that our country needs. Every little while we read the letter of some farmer who scolds because the farming interests are not more largely represented in parliament by actual tillers of the soil. We confess that we have a great deal of sympathy with the plaintiff. But who is to blame for our present lack of balance in politics? The farmers of our rural constituencies have the votes with which to select their own men, and if they fail to do so we must come to one of three conclusions. Either they prefer town men to represent them (which no one can believe), or they have not sense enough to vote the way they think (which is equally unbelievable); or, when it comes to a choice in concrete form, the town man commends himself to the farmer as a more able and desirable representative than the farmer whose name appears as an opponent, or, perhaps, only as a possible candidate.

To say this is not flattering to the farmer, but if anybody can suggest any more palatable explanation we shall be glad to hear from him. Somebody, of course, will at once say that the party "machines" are to blame in that they do not bring farmers forward. We cannot see that this explains. The political parties are looking for strong men (and this, in the political sense, means men who will command the majority of votes). In our rural districts these votes are held by farmers, and so it is only fair to say that our parties are looking for the very men that will be most likely to be endorsed by the farmers themselves. And we believe that both parties realize that, with all other things equal, a farmer candidate is more likely to be elected in a farming community than is a town aspirant. To think any-

thing else than this would be a libel on the intelligence of farmers.

Now what has all this to do with the educative work to be undertaken through the G.G.A.? Just this: It shows that, while on the whole our farmers have just as much intelligence as their town brethren, they lack the ability to put their goods in the show window. Our young men need to be trained to think logically and incisively while on the platform. They need a better grasp of social and economic problems. They need to cultivate more that easy familiarity with affairs in general which comes with properly directed effort.

But this is not all. Rather it is the small part of it. It is all very well to develop the latent political possibilities among a few of our farmers. But the great good will come through the enlarged thought of the great rank and file who make up, and must make up, the body of our army of toilers on the land. And this enlarged thought will be developed by a well directed series of discussions such as the G.G.A. propose.

ONE OF OUR WEAK SPOTS.

The farmers of this country cannot be charged with lack of interest in most of the big questions of the nation. On nearly every one of these the average farmer has his opinion, and he takes occasion sometimes to express it. This is a happy circumstance. It is always a hopeful sign when people take an interest in big public questions. But is it not true sometimes that while we are greatly concerned over matters over which our control is only very remote, we are neglecting to place due emphasis on things that are right in our own hands and that are of equal weight?

We have a concrete case in mind. The other day we saw a big delegation of farmers go to Ottawa to talk about Government ownership and so on. That was all right. But just about the same time we were in conversation with a man who is very closely in touch with rural education in Manitoba. We asked him how the interest in the country school was growing among farmers, and his reply was something like this:—"In many communities there is almost no interest. Cases are not rare where it is hard to get a quorum for an annual meeting. It is sometimes difficult to secure enough competent men to permit their names to stand for election as trustees; and when they are elected some of them are only dead weights for the other trustees to drag along."

Let us make a liberal allowance for the places where this statement does not apply, and even yet things are not as they should be. The education of our farm boys and girls is a much bigger question than many of the others that farmers are talking about with a fair fluidity of language. The local school is essentially a community affair; it largely rests with the people of the district as to whether its work is first-class or tenth-class. It is theirs to make or to mar. Is the average community measuring up to its opportunity in this matter? Is the average parent taking an adequate interest in the only institution that will ever be available to his boys or girls, whose birthright it is to have offered them just as good an education as he can afford?

We say frankly that here is one of the weak spots with most farmers. Our governments cannot be charged with lack of interest in this problem. We have just had the Canadian Commission on Technical Education holding sittings all through the West. As a rule, the city people took a fair amount of interest. The building trades and mechanical crafts generally sent representatives to offer opinions as to how the Government could help in the proper training of our future carpenters and electricians and miners and machinists. And so it was all down the line. But how many farmers were there who came forward to plead for an improvement in the education of our country boys and girls? Did you hear of any?

This is one of the questions upon which the average urban community seems to be away in advance of the average rural

district. In most towns there are a number of live men who take a real interest in educational matters and help keep others interested. This is much less the case in the country.

Just a word from a journalistic standpoint. The Nor'-West Farmer is deeply concerned in the education of our country boys and girls, and has been. We have tried to interest our readers and do not propose to be disappointed with the results. But it is quite evident that the question of improving the rural school is not by any means a madly popular one. We could arouse more interest in a single issue by a scathing denunciation in general, vague terms of "corporation greed," "political trickery," or something of that sort, that in the end would really mean nothing, than we could by a serious attempt to do some good constructive work along the lines of improved education for our country boys and girls.

NEED OF A HORTICULTURAL LITERATURE.

The man who is ahead of his time may perform a great service to humanity, but he is always undervalued by his contemporaries. It is the same way with organizations. Many a movement of the highest value comes into its own eventually, but has to be pushed forward at the commencement in the face of indifference, and sometimes of actual opposition.

We feel that this is about the situation with our horticultural interests. The importance of trees, shrubbery, hardy fruits, vegetables, flowers, etc., is not grasped by the sheer pioneer, but the people of this country are gradually beginning to recognize the fact that, as contributing to the making of a worthy home, these things are all of importance.

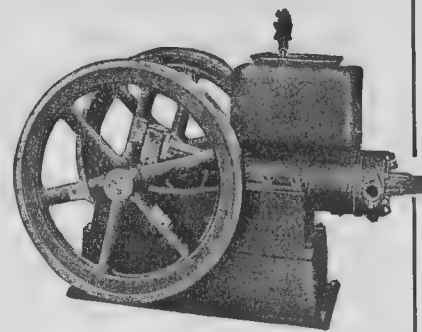
For years the Manitoba Horticultural and Forestry Association (formerly the Western Horticultural Society) has been struggling along, doing a noble work in the way of publishing its annual budget of horticultural literature and pushing the horticultural interests forward in whatever way it found possible. It has done this on very meagre financial support.

The time is now at hand, not only in Manitoba, but also in the other western provinces, when our governments could well afford to treat the horticultural interests a little more liberally. In Manitoba a regular grant of \$200 per year goes to the provincial horticultural association. That organization turns right about and spends more than that amount on the single item of literature, which is used for distribution to the public. The only other possible source of revenue is from membership fees, which are always absorbed long before the very most pressing items on the programme of the association have been passed.

The case deserves more liberal treatment. The Canadian West will never again need an adequate horticultural literature as badly as it does right now. We have got far enough along that a good body of horticultural knowledge has been accumulated by our most advanced experimenters in this line. But we have not yet reached the point where this knowledge has been disseminated as it should be. We require, in a reasonably permanent form, some adequate literature that could be easily available to every settler who wished to improve his holding according to the best knowledge. The horticulturists themselves are ready to supply the material for this literature, if government support could be secured to carry it to the people.

We are of opinion that the Manitoba Government could not take up any more useful work than to assume the publications of the provincial horticultural association as a provincial enterprise. The Ontario Government does this for its provincial horticultural society, and gives very wide circulation to reports and papers that are of relatively no greater value than ours. The Minnesota Legislature, besides a regular grant of \$2,500 per year, holds itself ready to pay for printing the annual report of the

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the question of duty does not enter into cost...It is, all things considered, by far the the cheapest engine on the market. Its makers, THE GILSON MANUFACTURING CO., give up their up their whole time, talent, and plant to the exclusive business of the making of this engine.

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Winnipeg, Man.

state society up to the amount of \$3,000.

What is the result of this kind of treatment? Horticulture is a strong, well developed interest in Ontario. Of course that province has climatic advantages. But let us look at Minnesota, with conditions so similar to our own. Minnesota has a state horticultural society with more than 3000 members. It has a northwestern climate, but it is rapidly becoming famous as a horticulturally beautiful state. And that is not all. Creative work is being carried on all the time, and now the fruit crop of the state is coming into such prominence that we read of a good many men making several hundred dollars an acre out of fruit. That is what we may call developing the possibilities of the country along right lines. That is all helping to increase their national wealth.

In some respects our horticultural interests occupy a unique position. We would not contrast horticulture with live stock keeping, grain growing, dairying, or any other branch of the farm's interests and say that these latter are less worthy. That would not be so. But horticulture is unique in its utter dependence upon local experience. Much of what is true in live stock matters, for instance, is true irrespective of climatic differences. The experience of the world at large can be drawn upon to a large measure, and the farmer who wishes to study the live stock question can get much information from sources outside his own province. This is not true to any appreciable extent in horticulture. The man who depends upon imported advice, except in a few matters, is apt to go wrong. And, indeed, it might be easy to prove that our farmers are paying every year more for horticultural mistakes, largely traceable to this very cause, than would supply the country with the kind of generally disseminated information that its needs demands.

All of our prairie provinces should give this matter proper attention, but Manitoba is situated differently from Saskatchewan and Alberta in having an aggressive and considerable provincial organization of horticulturists who are doing much voluntary work that could easily be made of wider benefit if it was properly supported and adequately placed before the public.

TARIFF ADJUSTMENTS.

There promises to be a good deal of discussion on the tariff question before the winter closes. And no doubt all sides will be heard from. This will be very beneficial, because there certainly are a great many considerations that must be weighed either in deciding upon a change of policy or upon leaving things as they now are.

The farmers have already declared themselves. They believe that they are paying too high a price for protection, and we are quite with them in their contention. They proposed certain sweeping changes, and many seemed to be looking for an immediate promise of adjustments in the tariff as sweeping and relentless as were proposed. To some perhaps the whole matter appeared very simple, and the hesitancy on the part of the Government in not accepting their programme was regarded as a suspicious sign.

We are entirely in sympathy with a reduction in tariff, and a substantial one at that, but frankly we believe that the matter is an infinitely more complex one than the average man ever considers it to be. Perhaps no line of business can be found that will better illustrate this than the implement trade. The farmers have asked for free trade in farm implements. That looks simple. But it is not by any means as simple as it looks. The adjustments, when they once begin, must be much farther reaching than would at first appear, or they will fall short of the requirements. We have some very large, wealthy and competent manufacturing concerns making farm implements in Canada. They do so under the advantage of a tariff against the American machines of somewhere around 17½ to 20 per cent. To many men that looks as though they make \$17.50 to \$20.00 clear gain on every \$100.00 machine they turn out. But

when we go behind the scenes we find that they, themselves, in turn, are up against the operations of the tariff. It reminds one of what Jonathan Swift once wrote:—

"So, naturalists observe, a flea
Has smaller fleas that on him prey;
And these have smaller fleas to bite 'em;
And so proceed ad infinitum."

When these makers equip their factories, they pay big tariffs on many lines of lathes, drop hammers, presses, bending machines and other heavy machine shop equipment that are not manufactured in Canada, or at least are protected very heavily. We find, when we look down the schedule, such items as these:

Belting, leather, etc., 22½% ad valorem
Smith coal53c. per ton.
Emery wheels25% ad val.
Lubricating oils20% ad val.

Then when the implement maker begins to buy material which he is going to convert into machines he goes up against some big tariff items. He does not simply cut saw logs and dig iron ore, and then do all the rest of the work. Manufacturing nowadays is not done in that way. Neither should it be. The implement maker starts on where a great many other men have left off. That is economy. In our last issue the chairman of the Manitoba Government Telephone Commission told us how the ends of the earth, almost, were drawn upon to build a telephone line. And that even under government operation! And so it is in all branches of industry. So it is in making implements. Much of the material used is the finished product of somebody else who has handled it before the implement maker has come on the scene. And here is an example of the way in which the tariff catches the implement man in Canada:—

Bar beams and angle steel, \$7 per net ton
Tees, channells, and hoop steel \$7.00 per net ton
Pig iron\$2.50 per net ton
Plow disc blades20% ad val.
Disc harrow blades20% ad val.
Bolts and nuts25% ad val. and ¼ct. per lb.
Springs20% ad val.
Chains10% ad val.
Steel Grease cups20% ad val.
Malleable iron20% ad val.
Paints, oxides, varnishes, etc., an average of about 33% ad val.

It is true that on binders and mowers the makers receive a drawback of the tariff paid on certain lines of materials imported. But this privilege is not enjoyed by all manufacturers of implements. Materials put into plows and drills, for instance, are not subject to any drawback—at least, not unless the finished products go into the export trade.

Of course, somebody will say that the remedy to all this is simple—that we have only shifted the tariff burden one notch farther along—that the duty should be taken off these other things also. Perhaps so. But we are not aware that in this discussion anybody has brought this point up. It may have been pre-supposed in the demands made by the farmers. But it cannot end merely with pre-supposition. It must either be neglected definitely or performed definitely. And when we begin to talk about knocking the duty off pig iron and steel bars and malleable iron, and other things of this nature, we come into contact with a great many other lines of trade, and we will find that other features of the tariff must be considered also.

Probably some of our readers will say that we have been arguing the case from the manufacturers' side, and not from the farmers' side. Possibly so; but we do not want our readers to think that there is only one side to this question of tariff. There are about one hundred sides to it, and it is not to the credit of any man if he refuses even to look at some of the others.

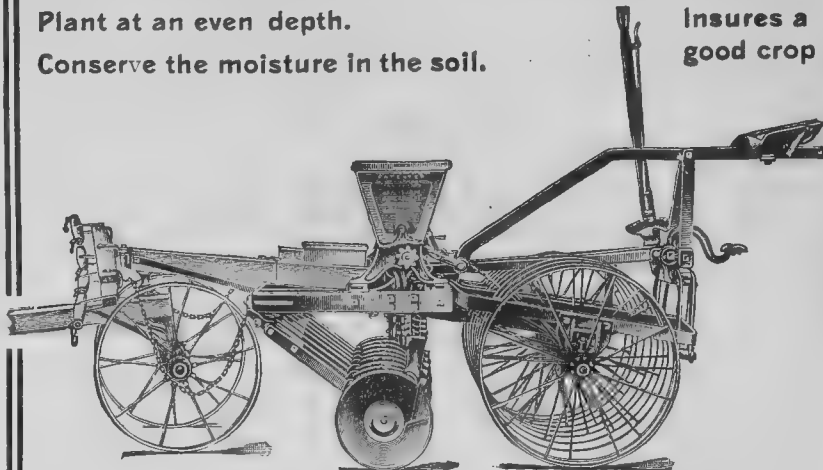
And now why all this argument? Simply to make two big points:—

First.—The tariff problem is one of the biggest and most complicated with which any modern government—others as well as our own—is face to face.

HOOSIER PRESS DRILLS

Plant at an even depth.
Conserve the moisture in the soil.

Insures a good crop



Hoosier Press Drills conserve the moisture in the soil, because they pack the earth over the seed when it is sown. This is why the North-west farmers are more certain of a good crop. The Hoosier gets the seed in the ground at an even depth and covers it. The Hoosier is Light Draft, has a positive force feed, never skips, never chokes. Has the greatest possible strength and will stand up under the severest strains. Absolutely guaranteed. Send for catalog and go to your local dealer and insist on seeing the Hoosier.

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Guaranteed to CLEAN and SEPARATE flax, wheat, oats or succotash BETTER THAN ANY OTHER MILL. Takes wild oats out of wheat; cleans flax, separating it from mustard and handles alfalfa, clover, millet, timothy and barley. Built for the farmer who changes and rotates his crop. JUST THE MACHINE YOU WANT. Durable and reasonable in price.

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Piecemeal adjustments are not what are wanted, and would be constantly upsetting the nation's trade in different directions. There must be fine balance and real statecraft shown in tariff manipulation.

Second.—We believe that the United States is leading us along the right lines in this matter and that what Canada really needs is a strong, permanent tariff commission, invested with power to make the most searching enquiry into all branches of trade and manufacture, and to adjust tariff—or at least advise adjustments of tariff—as might seem best in the light of all ascertainable fact. The members of this Tariff Commission should be as independent of any political party or any "interest" as our judges on the bench or our Railway Commission. They would be vested with the very highest kind of judicial capacity, and the body should be organized with this in view.

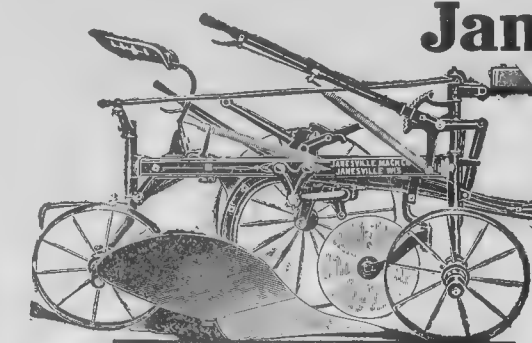
This idea was not favored by our western farmers' delegation. It does not appear to be popular. But what of that? Popularity is not the final test of wisdom. And we say without hesitancy that so long as our tariff is left in politics, just so long shall it be liable to be made the football and plaything of political opportunists and cheap platform orators, and just so long will its adjustment on a scientific, equitable basis be deferred.

SOME COMPARISONS.

Corn is selling in the Mississippi Valley states just now at around 35 cents per bushel. This is the staple crop down there, and is raised on land worth from say, \$75.00 to \$200 per acre. The farmer that gets a yield of from 40 to 45 bushels per acre is as well satisfied as the man in western Canada who gets 18 to 20 bushels of wheat per acre. Fort William price for wheat at time of writing is 95 cents. Wheat is the staple crop of the prairies and is raised on land worth from, say, \$15 to \$35 per acre—some cheaper and some dearer. Fort William price for oats is 33 cents, almost as much as Mississippi valley corn is worth. We were talking with a man from the south a few days ago and, to use his expression, "the farmers down there are side-stepping to know what to do next. Corn is getting cheaper and land higher in price. Forty bushel per acre corn worth 35 cents, on \$200 land can't pay interest on the investment."

A few weeks ago we had occasion to make a trip through four or five of the banner corn states of the Union. There is much to admire about the corn belt farmer's methods, but at the same time, while riding through the great corn fields along the railway, it was difficult to refrain from inwardly sympathizing with him for the great amount of work which he has to perform before his corn crop is converted into cash. The same amount of work, or more, is necessary in preparing the seed bed for corn as is necessary for wheat, oats or barley. After wheat is sown, little attention is required until time for the binder, then comes the threshing, and hauling the grain to the elevator. The corn grower, on the other hand, must cultivate his crop three or four times, plow it until the stalks are too high to drive a team down the rows without breaking them. About 30 acres will keep one man and team busy for two months. Then in the fall comes the husking, hard hand work that, and it gets pretty frosty too before all the ears are picked. Many farmers were not yet finished with this job early in December. A good day's work for one man and a team is to husk 65 to 75 bushels of corn. That would seem rather slow business for a prairie farmer, and so it is. But that is where our western farmers have the great advantage. We do less hand work. Western fields are large and nearly every farm implement has a seat on it. Sometimes people say that it takes more capital to farm here than in the South or East. We do not reason it out that way. It may take a greater investment in farm machinery but it does not require a fortune to buy a farm.

The corn belt farmer, as a rule, has



List of Winnings At Wheatland 1910

Sweepstakes Prizes, for the best work done by any plow in any class. **First, Second and Third Prizes** in Post Graduate class—**First Prize** in Boy's Class under 15 years. **First and Third Prizes** in Prize Winner's Class—**Second and Third Prizes** in Riding Plow Class—**Second Prize** in Boys' Class under 17 years.

At Big Rock 1910

Sweepstakes Prize—won by a Janesville for the fourth time in succession. **First, Second and Third Prizes** in Prize Winner's Class. **First and Second Prizes** in Men's Riding Class. Janesville Plows were not entered in any other classes at Big Rock. The above is the most complete victory ever won by a plow and caps the climax to a series of big winnings in years past. The record of the Janesville is proof that they are the world's best plows.

Janesville Plows Win Again In Farmers Own Plowing Matches At Wheatland, Ill., and Again At Big Rock, Ill.

Ten Thousand Farmers witnessed the overwhelming Janesville Plow victories last September. While you may not be interested in the many victories of the Janesville, you are interested in getting the plow that will do the best work for you—for the longest term of years. Janesvilles have proved their value and superiority.

The contests at Wheatland and at Big Rock are promoted and run by farmers. They offer their own prizes and have absolute control. They are in no way interested in advancing the interests of any particular manufacturer. Only farmers with their own plows are allowed to enter. The sole object of these contests is to create a sentiment for better plowing and better farming. And the many Janesville victories are

The Best Proof of Highest Quality

If you look carefully into the materials, the construction and the principle used in the Janesville you will know why they repeatedly outclass all other plows.

Simply trip the "lift" with your foot and the horses pull the plow bottom into the ground at the start and out of the furrow at the end. The point of the plow bottom always goes in and comes out first just like the walking plow, because the movement is just like your arms. In entering the ground the heel of the plow bottom is held up—so the point must go down. In leaving the ground, the heel of the bottom is held down, so the point must come out of the ground first. This Janesville feature eliminates the objections to the foot-lift as compared with the hand-lift. You have absolute control of plow bottom at any position between the highest and lowest points of action in the Janesville. Our simple, effective, self-leveling device is something that all plow-makers have tried to get for years, but only we have succeeded. There are many other reasons for Janesville superiority.

Send Postal For All Janesville Books

We will give you the name of our dealer in your town so you can see the Janesville. We also make the famous Janesville Walking Plows, Riding or Walking Cultivators, Disk Cultivators, Disk Harrows and Janesville Corn Planters. When you write for Janesville Plow Book, say whether you are interested in any of our other implements. We'll gladly send you all the Janesville books free—postage prepaid. Send postal or letter, now to

THE JANESVILLE MACHINE COMPANY

15 King Street

Winnipeg, Manitoba

more comforts in his home than the average prairie grain grower. This is not because he can any more afford it, but because he appreciates the value of such things. We are getting to that more and more. In fact it is not necessary to go out of western Canada now to find country homes the equal for comfort, convenience, and enjoyment of any to be found other places on the American continent. We need more such, though, and the western grain grower is justly criticised for his lack of attention to the home surroundings and home life.

The editors of this paper believe that the habit of making comparisons is oftentimes a good one. Just now, with the thermometer around 30 degrees below zero, it may seem that the north is getting her full share, and even more, of cold weather. As far south as Kansas City temperatures of 16 below zero are reported, yes and along with this a humid atmosphere that chills to the very marrow. We believe the 16 below there bothers them more than our 30 below here. Anyway, it doesn't make any difference. The farm homes of this country are as bright as any. No one person, no one people, district, territory or country possesses all the best things of life. No one occupation is better than all others in every respect. Every business or industry that has lived long enough to be recognized as such has a

bright side and also, perhaps, some discouraging features to the faint heart. It seems that man is an animal that must cope with a certain measure of opposition in order to reach his fullest development. Opposition makes us appreciate the smooth places. Plowing the fields and preparing the seed bed makes us look forward with enthusiasm to the later harvest.

In each of the provinces a great schedule of winter meetings has been arranged by various farmers' organizations. We attend these gatherings to make comparisons. At the seed grain fairs that is what is done. If our sample of grain is beaten by another we try to see how it happened and go home to improve next year's exhibit. Ideas are compared at the conventions and annual meetings of the various societies.

These meetings all mean that farmers are comparing themselves with each other and their business with other industries. It helps. By such methods are improvements wrought. If we do not know what is wrong with ourselves or our own work, our neighbors can tell us. Then we have first hand information that should lead to improvement.

The average number of bushels of grain per acre inspected last year was as follows: Wheat, 1075; oats, 1900; barley, 1200; flax, 1000; rye, 1000.

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COMPO-BOARD can be used for walls, ceilings and partitions to better advantage than lath and plaster because it can be put on quicker, any one can do it, and will last longer. You will never be troubled with cracks or plaster falling off, it is dry and sanitary. Compo-Board when once put on outlasts the building with no expense for repairs. It will keep your house warm in the winter and excludes heat in the summer.

It is a practical wall lining for any building and can be artistically used for any room in the house. Can be papered, painted or kalsomined perfectly.

Made in sheets 4 feet wide and 8 to 16 feet long and can be bought at the dealers in most every town.

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If modern design and careful construction, coupled with ease and economy of operation, mean anything to you in a Farm Tractor, the "FLOUR CITY" is the engine you want. It has shown its superiority by TWICE WINNING THE GOLD MEDAL at the International Motor Contest at Winnipeg.

Built in two sizes, 30 and 40 h.p.; has high drive wheels, best accessories—made on honor throughout, and gives lasting satisfaction to every buyer.

Write for catalog and record of its achievements in all classes of farm work.

Kinnard-Haines Co., 820 44th Ave. N. and Bryant, Minneapolis, Minn.

Ontario Wind Engine and Pump Co., Dominion Sales Agents,

Winnipeg
Calgary, Toronto



Poultry raisers are invited to contribute their experience to this department.

Poultry Houses at Edmonton Station.

The poultry farm at Edmonton under the control of the provincial Department of Agriculture and superintended by A. W. Foley, has both the colony and continuous house type of buildings. Two new colony houses were added last year and one of the continuous house type. The houses are described by Mr. Foley as follows:

"The continuous house is 72 feet long and divided into six rooms of 12 feet each. This house is divided by solid partitions into three parts of two pens each so that three different experiments can be conducted at the same time. The interior fixtures are similar to those recommended in other houses with the exception that the nests are constructed two feet from the ground giving all the floor space for the use of the birds. The walls are constructed of one thickness of V joint lumber. The front is constructed of 18 inches of V joint lumber in the bottom and filled in above with cotton tacked on frames that are hinged in order that they may be readily opened or closed. The openings are covered with poultry netting so that when the frames are raised the birds are enclosed in an open shed house.

"The two colony houses are 8 feet by 12 feet enclosed with V joint lumber, the roof being of the same material. Boards are placed from plate to plate some three or four inches apart and the apex filled with straw. In each end of the apex is a hole 18 inches square covered with cotton to allow for a circulation of air through the straw. The roosts and drop boards are placed in the end of the houses and the nests similarly to those in the continuous house. In all the new houses the drop curtain is used in front of the roosts to protect the birds at night in very cold weather. By way of experiment one of the houses has glass windows while the other has cotton windows. Thermometers will be placed in each of the pens and records kept of the temperature."

Preparing Fowls for Showing.

By Manitoba Subscriber.

Poultry shows will soon be the order of the day, and those who intend to exhibit will need to look over their flocks, select the best birds, and begin to prepare them for the show pen. If the birds are light in weight, feed them a little extra, especially the cocks and cockerels; they may be a little thin. Be careful not to get them too fat. Just before the show the white birds will need to be washed. Use a tub or large dish, soap and water. The birds can be held by the legs and wings by placing one hand under the breast, and should be kept from fluttering. Wash thoroughly, and then rinse in clean soft water. It may be necessary to give them a second bath. Finish with a blueene bath, or rinse in soft water to which a little blueene has been added, not too much. Squeeze the feathers out as dry as possible, but be careful not to break any of them. Place the birds near the stove to dry; it may be necessary to borrow the kitchen for a day. Colored birds, if kept in clean quarters, will need only to be sponged with a wet rag. Sponge their shanks and feathers. In every case where birds are wet they should be thoroughly dry before they go to roost, otherwise they will take cold, no matter how warm their pen may be. This washing is a lot of trouble, but the birds look nicer and will make a better impression on the judge. There is more pleasure in handling a clean bird than a dirty one.

So much for preparation. What about

getting them, the prize birds? First, do all who read this know what a prize bird means? Most would say that it is the best bird in the show. Well, it is, and it is not. The best bird in the show might not get a prize at all. The standard says that a first-prize bird shall score 90 points, second prize 88, third prize 85. So if there were birds there that did not score 85 points they would not get a prize at all, and would be awarded accordingly. There are different ways of getting prize birds. Originally they all have to be bred, and mostly from properly mated pens. But often the exhibitor does not do the breeding. He may buy them, but he quite likely will have to pay a long price. Perhaps the exhibitor may not have the time, or he may not have the patience, so he buys. Nor yet the prize-winning birds always secured from prize-winning stock. Of course good stock is necessary, and by proper mating prize birds, or at least birds of high quality, may be expected. Defects in birds may be improved by mating. For example, birds may be too light in color. By crossing with birds that are very dark in color an improvement may be secured in the chicks—in some of them, at least. In shape they may be too full in the breast or too light in the back. They may have defective combs. Study the birds and mate for improvement. One of the best matings I ever made was by using a cockerel that could not win a second prize. I went to a breeder's place to look at some birds he had for sale. Those he showed me were very good, but they did not suit. I noticed a late bird running about the yard, and asked the man to catch him so that I could look him over. The fellow laughed at me, but caught the bird. I took him home, and the next year the stock from that bird could win over the stock of this breeder. I do not win everything in my class, but I breed all of my winners, and get some of the cream.

Edmonton Poultry Show

The Twin Cities Poultry and Pet Stock Association held the most successful exhibition in its history Jan. 3 to 6. There were on exhibition 956 birds in all, which is double the number out at any previous exhibition. The quality of the exhibits was likewise correspondingly higher than ever before. Three or four breeds were out that had never been shown before. A. W. Foley had a pair of Partridge Rocks. Alex Taylor had entries in both the male and female classes of Silver Grey Dorkings, and there was also a good pen of Scotch Greys.

The representation in the different classes is instructive. It was as follows:—American, 326; Mediterranean, 228; English, 113; Asiatics, 58; Pit Games, 56; Bantams, 53; Turkeys, ducks and geese, 75; Mixed entries, pigeons, guinea fowl, etc., 50.

On this count, the utility birds comprised about half the number of exhibits. The Brown Leghorns led for number in any single breed, with 106 birds, followed by the Barred Rocks with 99, Buff Orpingtons 79, Rhode Island Reds 76, and White Wyandottes 71. The competition in all these classes was very keen. The awards were made by E. N. Barker, of Cardston, assisted by R. H. Richards, of Calgary. The number of entries made the task a very heavy one. The exhibition was free and was thronged with visitors. Selling was very active. Much of the success of the fair was due to the work of Manager Nixon and W. McC. Moore, the secretary. The awards were as follows:—

Light Brahmas: Cock, 1 and 2; hen, 1, 2 and 3; cockerel, 1, 2 and 3; pullet, 1 and 3; pen, J. H. Wilson.

Partridge Cochins: Cock, 1; hen, 1, 2 and 3; cockerel, 1, 2 and 3; pullet, 1, 2 and 3; pen, Wilson.

Buff Cochins: Cock, 2; hen, 2 and 3; cockerel, 1; pullet, 2 and 3; pen, 1, 2 and 3. J. E. White.

Barred Rocks: Cock, 1 and 2; J. Shackleton; 2, J. B. Nixon; 4, Shackleton; hen, 1, 3 and 4, Shackleton; 2, Nixon; cockerel, 1 and 2, Shackleton; 3, Nixon; 4, J. Francis; 5, J. Ross; pullet, 1 and 2, Shackleton; 3, J. Miller; 4, Francis; 5, J. Ross.

White Rocks: Cock, 1, J. W. Jackson; hen, 1, Jackson; 2, A. E. Basingthwaite; cockerel, 1, Mrs. H. T. Telford; 2, Jackson; 3, R. Telford; pullet, 1, Mrs. Telford; 2, R. Telford; 3, Jackson; pen, 1 and 2, Mrs. Telford; 3, Basingthwaite; 4, A. Cormick.

Partridge Rocks: A. W. Foley, cockerel, pullet, 1, 2 and 3.

Wyandottes, White: Cock, 1 and 2, W. C.

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S.C. White Leghorns

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SASKATCHEWAN POULTRY FARM'S BARRED ROCKS are noted for exhibition and laying qualities. Eggs for hatching securely packed, per setting \$3, best pens 2 for \$5, others \$2. Can't be beat. Gold Coin Seed Potatoes, at \$1.25 bus. are immense. H. H. Willis, Boharm, Sask.

MRS. A. COOPER, Treesbank, Man., I have the largest high quality flock of Busy "B" Barred Plymouth Rock youngsters I ever had. Farm raised on free range. First class well grown exhibition and utility cockerels for sale. Also a few females. Good laying strain. Send for prices and show record.

HENRY H. PEARSON, Stonewall, Man., breeder of Single and Rose Comb Rhode Island Reds. A limited amount of Rose Comb Stock yet for sale. Start the New Year by using the Philo System of Poultry Keeping. The Potter System picks out the Drones in your flock. Each book \$1.00. Write me if you want some good Barred Rock Cockerels.

J. F. DAVIS, Grenfell, Sask. Light Brahmas Barred Rock, S. C. Buff Orpingtons, Bronze Turkeys, Pearl Guineas, Toulouse and Embden Geese and Pekin Ducks, Homer, White Fantail and Magpie Pigeons. Eggs in season and stock for sale.

C. G. GOLDING, Churchbridge, Sask. B.P. Rocks and S.C.W. Leghorns. Won 10 prizes 1910 Shows, 1st pullet, 2nd hen, 3rd cockerel, S.C.W. Leghorns at Brandon Inter-Provincial 1910. Grand cockerels, either breed, \$2.00 and \$3.00 each. A few B.P. Rock pullets \$10.00 per dozen.

JOHN STRACHAN, Uphill Stock Farm, Pope, Man., breeder and exhibitor of S.L. Wyandottes, S.C.B. Minorcas, S.C. Brown Leghorns, Barred Rocks, Bronze Turkeys, Pekin Ducks, and Pearl Guinea Fowl. Stock of all breeds for sale.

WILLIAM PERRY, Neepawa, Man. Breeder of Barred Plymouth Rocks (Hodgkinson's Prize winning strain). Big, vigorous blue barred Cockerels for sale from \$3 to \$5 each. Order early and get the pick. Eggs at 3 per setting.

RICHARD LEA, Bridge Creek, Man; breeder of prize-winning Barred Rocks. Cockerels for sale from \$2 to \$10 each, after New Year from \$3 up, pens of four from \$5 up. Make all orders payable at Franklin.

THE CANADIAN POULTRY YARDS—Pure bred S.C. Brown Leghorn cockerels for sale, from the best laying strain in America, sold at \$1.00 a piece while they last. Robert C. Rutherford, Drawer 48, Minnedosa, Man.

MRS. W. W. HOFFMAN, Borden, Sask. Barred Plymouth Rock Cockerels and hens for sale, also S.C. White Leghorn Cockerels, \$1.00 per bird. Eggs in season.

G. H. GRUNDY, Virden, Man., breeder and exhibitor of Barred Plymouth Rocks. A large number of choice Cockerels for sale. Look these over at the coming poultry show.

WM. ABBOTT, Holland, Man., breeder and exhibitor of S. C. Black Orpingtons. Have won more prizes than any breeder in Western Canada from Port Arthur to Regina. Stock for sale.

F. H. WEINEKE, Stony Mountain, Man. Prize winning Rose Comb White Leghorns and Single Comb Rhode Island Reds. Eggs for sale in seasons.

MRS. F. WALSHAW, Grenfell, Sask. Barred Rock cockerels \$1.50 to \$5. Winnings at Grenfell: 1st cock, 1st hen, 1st spring chickens, 2nd turkeys. Few young gobblers for sale at \$4 each.

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BLACK ORPINGTON Cockerels, Buff Orpington Cockerels, from Seath stock, April hatched vigorous birds, \$2 each if taken at once. Mrs. John Turnbull, Cromer, Man.

S.S. HAMBURGS and Black-tailed Japanese Bantams for sale. Write for prices. W. L. Esau, Box 42 Winkler, Man.

BUFF PLYMOUTH ROCKS.—Birds that have won over 80 prizes in 3 years. Stock and eggs for sale. T. E. Taylor, Glenboro, Man.

RHODE I. REDS.—Rose comb. Cockerels \$2, \$2.50, \$3. Hardy, healthy, farm raised. Fine color and size. G. H. Nicholl, Manitou, Man.

BARRED PLYMOUTH ROCK COCKERELS for sale. First-class birds, guaranteed. Prices from \$2 to \$5. Correspondence cheerfully answered. Johnsen Kyle, Weyburn, Sask.

R. D. LAING'S S.C.B. MINORCAS have won more prizes the last three years than all others combined. Some grand birds for sale now. Write your wants. Also a few Collie pups. Stonewall, Man.

S. C. BROWN LEGHORN AND B. P. ROCK COCKERELS—Also Perkin drakes. For prices write Herb. Adamson, Moosomin, Sask.

W. H. PALMER, Box 1111, Winnipeg, breeder of White Wyandottes, R. C. Brown Leghorns. Eggs in season, \$2 per 15. Young stock for sale.

J. M. WALLACE, Rosser, Man., breeder of Black White and Buff Orpingtons. Stock for sale, Eggs in season.

S.C. BLACK ORPINGTONS—A few choice cockerels and pullets for sale at reasonable prices, from my prize winners. Wm. Abbott, Holland, Man.

MRS. F. S. DURST, Mortlach, Sask. Pure bred Mammoth White Ostrage Turkeys and Royal White Wyandotte Cockerels for Sale.

ROYAL WHITE WYANDOTTES—Splendid stock for sale. Write for prices, F. W. Goodeve, Stonewall, Man.

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WHITE ROCKS. Official strain. Eggs in season. W. M. Champion, Reaburn, Man.

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LEG BANDS, fit any fowl, 12, 20c; 50, 60c.: \$1.00, 100 postpaid. Roup Cure, one 50c. package makes 25 gals. medicine. Money back no cure. Lice Powder, large, 50c. Humphrey's Bone Cutter \$17.50. Agent "Peerless" Incubators. Send for booklet.

FRED BRADSHAW, Regina, Sask.

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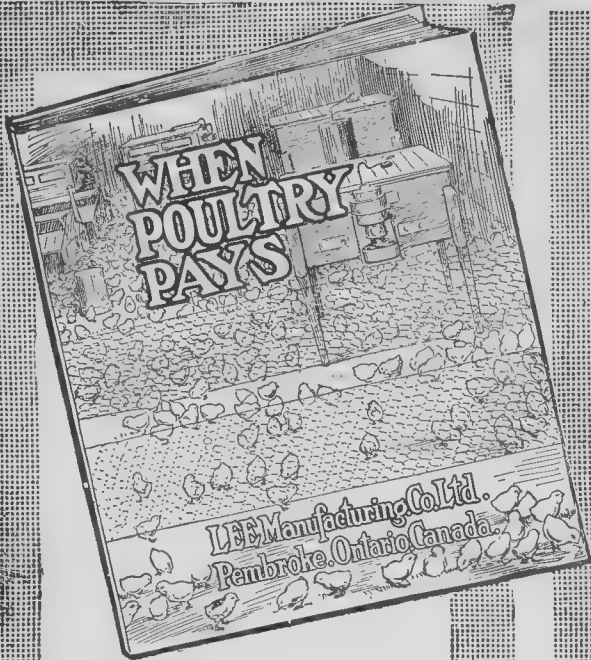
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15,000 Canadian poultrymen to the possibilities of the industry—and CAN show you. The Peerless Way will show you the unequalled opportunity for extension that exists in the poultry business—how its numerous and varied branches are capable of rhythmic combination and unison; it will illustrate how the business may be adapted to your locality, either as an individual business of considerable size or as a work secondary to some other, either upon enlarged or confined limits.



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Bradburn; 3, A. B. Everts; 4, Belmont Poultry Farm; hen, 1 and 4, Bradburn; 2, H. L. Higgs; 3, Belmont Poultry Farm; cockerel, 1 and 2, Bradburn; 3, Belmont Poultry Farm; 4, H. C. Richards; pullet, 1 and 2, Richards; 3, Higgs; 4, Belmont Poultry Farm; pen, 1, White; 2, Richards; 3, Bradburn; 4, Higgs.

Partridge Wyandottes: Cock, F. Pierce; 1, hen, F. Parker; 2, B. G. Hebden; 3, Pierce; cockerel, 1, N. Gurton; 2, A. Taylor; 3, Parker; 4, Pierce; pullet, 1, Taylor; 2, Pierce; 3 and 4, Hebden; pen, Pierce.

Golden Wyandottes: Cock, 1, White; hen, 1, White; 2, J. Quill; pullet, 1 and 2, White. Silverlaced Wyandottes: Hen, 2 and 3, T. W. Killips; cockerel, 2, Killips; pullet, Killips.

Rhode Island Reds, R. C.: Cock, 1, Belmont Poultry Farm, 2, White; hen, 1 and 2, Belmont Poultry Farm, 3, White; cockerel, 1, 2 and 3, Belmont Poultry Farm; pullet, 1, 2 and 3, Belmont Poultry Farm; pen, 1, 2 and 3, Belmont Poultry Farm.

Rhode Islands Red, S. C.: Cock, 1, F. J. Klaas, 2, H. Perry, 3, White; hen, 1 and 3, White, 2, Klaas; cockerel, 1, A. C. Sloan, 2, H. Southworth, 3, G. McSparran, 4, Belmont Poultry Farm; pullet, 1, White, 2, Belmont Poultry Farm, 3, McSparran; pen, 1, Klaas, 2, Perry, 3, H. L. C. Chrisman.

Leghorns, Brown—R. C.: Cock, 1 and 2, White; hen, 1, 2 and 3, Killips, 4, White; pullet, 1 and 2, White, 3, Jackson; cockerel, 1, Jackson, 2 and 3, White; pen, 1 and 2, White.

Leghorns, Brown—S. C.: Cock, 1, 2 and 3, Shackleton; hen, 1, 2 and 3, Shackleton, 4, N. Linden; cockerel, 1 and 2, Shackleton, 3, White, 4, Linden; pullet, 1, Shackleton, 2 and 3, White, 4, Linden.

White Leghorns, S. C.: Hen, 1 and 2, Jackson, 3, H. C. Dixon; cockerel, 1, J. P. Hall, 2, C. A. Graham, 3, P. Turner; pullet, 1, H. S. Dixon, 2, Hall, 3, Turner, 4 and 5, Dixon.

White Leghorns, R. C.: Hen, 1, J. A. Massey, 2 and 3, Jackson; cockerel, 1, Jackson; pullet, 1 and 2, Massey, 3, Jackson; pen, 1, F. A. Bishop.

Buff Leghorns, S. C.: Cockerel, B. N. Hebden, Black Leghorns, S. C.: Hen, 1, 2 and 3, Shackleton; pullet, 1, Shackleton.

Buff Leghorns, R. C.: Hen, 1, Jackson, 2, Hebden; cockerel, 1, Hebden; pullet, 1, Jackson, 2 and 3, Hebden; pen, 1, Hebden.

Black Minorcas, S. C.: Hen, 1, Massey, 2 and 3, Hebden; cockerel, 1, J. Yuill, 2, Massey, 3, Hebden; pullet, 1, Massey, 2 and 3, Yuill; pen, 1, Hebden.

Black Minorcas, R. C.: Cock, 1, N. Gurton, 2, Massey; hen, 1, Massey; cockerel, 1, Jackson, 2, Hebden.

Andalusians: Pullet, 1, Killips.

Anconas: 1, cockerel, 1, pullet, 1, pen, T. J. Smith.

Polands: 1 cockerel, and 1 pullet, R. Telford. Orpingtons, Buff: Cock, 1, G. Taylor, 2, L.

Walt Mason on Winter Egg Laying.

I have a large buff Cochin hen. I keep her in a gaudy pen, and there she fusses all the day and never takes the time to lay. In summer time, when eggs were cheap, that hen would lay eggs in her sleep. She laid enough to feed a troop: she piled them up all round the coop. I used to take those eggs of hers and throw them at the passing curs; for all the world was daubed with eggs; they fetched three cents per dozen kegs. But now that winter raves and groans, and eggs are scarce as precious stones, that silly hen just loafes all day and doesn't earn her corn and hay. Some day when wearied by the strife that marks this journey we call life, when with a deep conviction fraught that chicken pie would hit the spot, I'll kill that old hen, I'm afraid, and then she'll wish that she had laid. There's nothing worse, you'll all agree, than misdirected energy. The hen that lays when eggs are cheap, and when they're dear lies down to sleep; the dog that barks when nothing's wrong, and sleeps when burglars come along; the man who tills on Sabbath day and loafes the whole long week away—these from one's eyes the tears would draw; there surely ought to be a law.

Live stock rations are frequently discussed and there is much interest in the amount and kinds of feed best to use. Such questions are less frequently asked concerning poultry. Four ounces of grain feed per day should be a good allowance for laying hens. At present grain prices this would cost around three cents a week.



P. D. Gibson, Melfort, Sask., sends us a photograph of his flock of 45 Turkeys.

Hutchinson, 3, T. Garbut; hen, 1, White, 2, Hutchinson, 3, Garbut, 4, A. Taylor, 5, G. Taylor; cockerel, 1, Garbut, 2 and 3, F. Cullamore, 4, White; pullet, 1 and 2, Cullamore, 3, Garbut, 4, Belmont Poultry Farm, 5, T. W. Swallow; pen, 1 and 2, Cullamore, 3, Chrisman, 4, Taylor. Orpingtons, Black: Cock, 1, 2 and 3, J. E. White; hen, 1, 2 and 3, J. E. White; cockerel, 1, J. E. White, 2, J. P. Hall; pullet, 1, J. E. White, 2, J. P. Hall; pen, 1 and 2, J. E. White.

Orpingtons, White: Cock, 1, Telford, 2, Shackleton; hen, 1, Telford; cockerel, 1, Basingthwaite, 3, Telford; pullet, 2, Telford.

Dorkings, S. G.: Cock, 1, Taylor; hen, 1 and 2, Taylor; pullet, 1 and 3, Taylor.

Houdans: Hen, 1, pullet, 1 and 2, Killips. Hamburgs: Silver Spangled: Cockerel, 1, Smith, 2, Killips; pullet, 1, and 3, Smith, 2, R. Telford.

Turkeys, Bronze: Gobbler, 1, Mrs. F. T. Shaw, 2 and 3, T. S. Matheson; hen, 1, Mrs. W. R. Killips.

Turkeys, White Holland: Gobbler and 1 and 2, A. E. Everts.

Geese, Toulouse: Gander, 1 and 3, Mrs. Shaw, 2, G. H. Cresswell; goose, 1 and 2, Mrs. Shaw, 3, Matheson.

Geese, Chinese: 1 goose and 1 gander, Basingthwaite.

Geese, African: 1, gander and 1, goose, Mrs. Killips.

Ducks, Pekin: Drake, 1, H. Cuthbertson, 2, M. Walker, 3, Miss J. R. Howe; duck, 1, 3 and 4, Cuthbertson, 2, M. Walker.

Ducks, Rouen: Drake, 1, duck, 1 and 2, Killips.

Guinea Fowl: Cock, 1, Killips, 2, Basingthwaite; hen, 1, Basingthwaite.

Exhibitors of Pit Games were W. H. Jaeger, H. V. Shaw, F. A. Burlingame, and C. May, and of Pyle Games, R. J. Impey. Bantams were chiefly Buff, White and Black Cochins, and Seabright Golden. The Rutherford cup for utility pen went to R. H. Richards with White Wyandottes. T. Garbutt won the association cup for best bird in the show bred by exhibitor with a Buff Orpington cockerel. W. C. Bradburn won the cup for best shaped utility bird with a White Wyandotte. J. Shackleton of Olds had the best Plymouth Rock. W. H. Jaeger won the gold medal for best game cock.

Properly worked butter, when cut half through and then broken, should show a distinct fracture, as with a piece of iron. Overworked butter will not do this.

An Old Country poultry woman says that four things are essential in order to get eggs in winter, viz.: Suitable fowls, birds hatched at the right season, proper feeding, and suitable houses and shelter.

On too many farms the stock of poultry is a decidedly mixed one. Not enough effort is made to improve the farm fowl. Occasionally a few cockerels may be brought in as stock birds out aside from this the "biddies" are more or less a neglected lot.

Birds more than two years old are not profitable from the standpoint of egg production. Old hens will eat their heads off and but for the fact that they lay larger eggs than pullets, and which are thus better for hatching purposes, the farmer would do well to sell off all his old stock every year and depend on the pullets.

Perhaps it is more important to keep the poultry houses clean in winter than in summer. At this time of year the birds have to stay inside, while in warm weather they can leave the dirty houses for the clean range. Cold weather causes a contraction in egg production, but lice and other vermin, which are certain accompaniments to dirty houses, will do it quicker.

Thos. Ashford, Weyburn, Sask.:—"I have been a subscriber to your paper ever since I came to this country, and intend to be as long as I live, unless you go broke by publishing such a grand paper for \$1.00 per year.



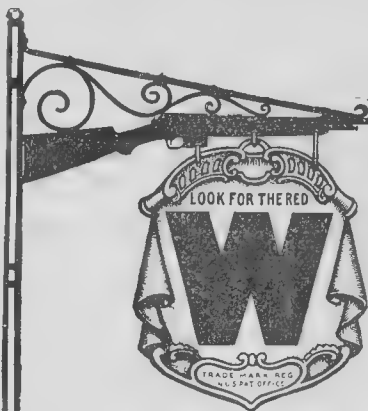
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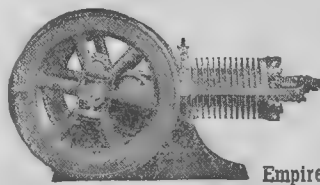
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Alberta Dairymen Meet.

First Annual Meeting—Addresses by Dairy Commissioner, Live Stock Commissioner, and Hon. Duncan Marshall—Grading Cream, Co-operative Factories and Centralized Creameries—Dairy School—Feeds for Dairy Cattle—Dairy Legislation—Prof. Elliott on the Milking Machine—Resolutions—Election of Officers—Banquet to Delegates.

Special Report to the Nor'-West Farmer.

The Alberta Dairymen's Association held its first annual meeting at Innisfail, Alberta, on January 4th and 5th, 1911. There was an attendance of 46 delegates. These were largely representatives of the government operated creameries, but the co-operative and private owned creameries were well represented also.

Mr. C. Marker's Address.

In his opening remarks, the Dairy Commissioner, Mr. C. Marker, stated that the value of dairy products in Alberta last year amounted to \$4,000,000, and that there were in the province, all told, 60 creameries. Of these, 38 are privately owned, 8 are co-operative concerns, and 14 are owned by joint stock companies and operated by the government.

1910 Unfavorable for Dairying.

The past season, he said, was unfavorable to the dairy industry as a whole, because of short pastures and a general scarcity of other succulent feeds. It was especially to the creameries and cheese factories because the city milk dealers were compelled to invade the creamery districts in order to secure supplies for their trade.

Centralized Creameries.

Mr. Marker stated that one of the features of the dairy industry last year was the establishment of centralized creameries. He did not look upon this as a move that would tend to improve the dairy industry, as he had inquired into the effect of their establishment in Ontario and the United States, and in every instance they resulted in a larger percentage of No. 2 creamery butter. He said, if the industry is to thrive, everything possible should be done that will tend to increase the percentage of No. 1 butter, and he could not help looking upon a system that increased the amount of a second class article as detrimental to the business. He reiterated the motto he presented to the delegates a year ago: "If all were as good as the best?"

He then called upon the delegates from those co-operative creameries which had withdrawn from government operation and undertaken to operate for themselves. Wetaskiwin reported that their operating expenses amounted to 5c. per pound on the output; Red Deer, 3.86c. per pound; Blackfalds reported an output of 20,000 pounds, and expense of making and selling, 3½c. They had sold in B.C. mining districts, and had secured good prices. The low cost of making and marketing was due to their having made a special contract with their butter maker, and had not charged the patrons anything for the use of the plant. The delegates from Blackfalds thought there would have to be an output of 40,000 pounds in order to pay. Earlville made 33,000 pounds of butter for less than 4c. per pound; the patrons were well satisfied, largely because they were able to make payments more promptly than could be done under government operation. Markerville reported a slightly higher cost of making than last year, because of a smaller supply of cream.

Dairy School Opens.

Mr. Marker then announced that immediately after the close of the convention there would be opened a dairy school, at which instruction would be given in grading cream, testing for butter fat, butter making and scoring; also a course in engine work, such as adjusting engines and re-tubing boilers. That the Innisfail Creamery Association had tendered the use of their plant, and that the school would have charge of the cream supply and assist in preparing the same for churning and market.

Evening Session.

The evening session was devoted to discussing foods suitable for dairy cattle.

Mr. W. F. Stevens, the Provincial Live Stock Commissioner, was the first speaker. He emphasized two points in feeding dairy cattle, namely, the providing of water, and protein. He said the water should be pure and palatable, and during the winter should be tempered. A hole in the ice, said Mr. Stevens, was not an ideal place for watering cattle of any kind. It was decidedly objectionable for dairy cattle. He said he had found tempering water for cows a paying proposition, and suggested a plan by which this could be done without much expense.

Another method of supplying water to dairy cows was in connection with the solids of their food. In other words, by the use of succulent feeds. Mr. Stevens urged the dairymen to sow blue grass for summer pastures, winter rye for late fall and early spring, and roots, particularly turnips and Swedes, for winter use. He said he knew these consisted chiefly of water, but it was "durned" good water, and that, after all, in his experience, the amount of dry matter in a turnip, mangel, or Swede, was no more the true measure of its feed value to a cow being fed largely on hay and grain, than was the dry matter in an apple the true measure of its food value to a man working in the bush and subsisting on boiled potatoes and pork and beans.

Proteins.

The problem of supplying proteins for winter use was a long way from being solved. Alfalfa growing was still in the experimental stage throughout the dairy sections. Red clover had not yet been grown to any great extent; white clover, though rich in protein and easily grown here, was too small a yielder to be considered. Bran had reached the limit in price for profitable feeding, and oil cake was dangerous in the hands of the inexperienced. Oats answered fairly well, and thus far had been the mainstay of the dairy farmer. But they fell far short of filling the bill as the main source of protein for our dairy cows. Mr. Stevens stated that he regretted very much that he was unable to recommend anything better, but said he had arranged to have some experiments made on his own farm with field peas, and had interested Mr. Elliot, of the Strathmore C.P.R. demonstration farm, in the matter, and that he hoped by another year they would have something more definite to present.

Mr. Bateman, of Innisfail, who was to have followed Mr. Stevens, being absent, Mr. Pearson, Inspector of Creameries, was called on. Mr. Pearson said that while there was little to take issue with in Mr. Stevens' address, he thought there had not been sufficient stress laid on the importance of growing fodder corn. He cited several instances where farmers about Red Deer, Erskine and Content, grew as much as five tons of fodder to the acre.

Mr. Scott, of the Innisfail Creamery, spoke of the value of root crops, and methods of feeding them without tainting the milk. He also dwelt on the necessity of growing legumes.

Mr. Pallesen, of the Central Creamery, Calgary, was the next speaker. He said that he thought the question of feeds had been sufficiently discussed, so he would make a few remarks about breeds. He believed the Holstein to be the best breed for the average dairyman, particularly the one who supplies a city trade.

Dairy Legislation.

The morning session of the second day of the convention was opened by an explanation of legislation passed during the recent session of parliament. Afterwards, with the aid of a chart, Mr. Marker showed the progress made in raising the standard of creamery butter as a result of the grading of the cream, and giving a premium of 2c. per pound on the butter made therefrom. He said the

What a Trade Mark Stands For

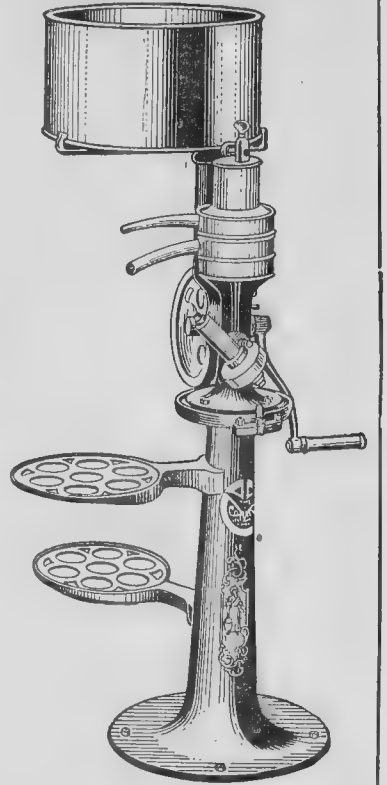
in a Cream Separator, is the ability to get MORE cream; a Separator that cannot get "more" had better be without a name altogether; for the name only serves to identify it to dissatisfied users.

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percentage of No. 1 butter was 15 per cent. greater in 1910 than in 1909, the standard having been raised from 68.4 per cent. to 83.5 per cent. At only one point was there a larger percentage of No. 2 butter made in 1910 than in 1909, while at Viking, Alberta, the quality of the output had been raised from 33 per cent. to 98½ per cent. of No. 1 butter. When the butter maker from Viking, Mr. Skalitsky, was complimented on his work, he modestly disclaimed the credit for it, and said it was due largely to an article written by a lady and published in a local paper, in which the writer appealed to the pride of the women of the settlement, and asked them all to do their utmost to put Viking at the head of the list of creameries in Alberta.

Prof. Elliot on the Milking Machine.

At the afternoon session, Prof. Elliot, of the Strathmore C.P.R. Demonstration Farm, explained the use of the milking machine. He said it had reached the stage where it can be pronounced a success. While it does not do as good work as a first class man, yet it is far superior to the average men one can hire. He said, the man who is milking 20 or more cows can afford to install a milking machine. He preferred tread power to a gasoline engine, as it is of the highest importance that the power be absolutely reliable and ready for business at milking time.

Resolutions.

The remainder of the session was taken up in the discussion and adoption of resolutions. They were in substance as follows:

Provided that while the association accepted the principle that each creamery should pay its own way, it was pointed out that there were some that had been established under a different principle, and the association asked that the principle be not enforced as to these.

Expressed appreciation of the Minister's announcement that the cold storage rooms at Calgary would be open to the use of all creameries, but asked that this should not apply to dairy butter or other produce.

Endorsed the dairy commissioner's plan of grading butter and approved all efforts to improve the quality of same.

Endorsed the Minister's idea of establishing a number of herds of dual purpose cattle in the province, and asked that at least one of these be a herd of Danish Red.

Asked that the law be enforced regarding the weight of butter offered for sale in one pound prints.

Asked that the proceedings of the convention be published by the government.

Requested that regulations re bulls running at large be enforced.

Asked that authority be given the co-operative associations to dispose of shares of stock issued to patrons who have failed to claim them and whose address is now unknown.

Expressed appreciation of the work of the Minister of Agriculture and of the Dairy Commissioner, Mr. Marker.

Election of Officers.

The convention then proceeded to the election of officers. The following were chosen: E. Carswell, Penhold, president; E. J. Fream, Innisfail, secretary; D. Morkeberg, Markerville, Donald Cameron, Lake View, Jos. Smith, Innisfail, directors.

Luncheon to the Guests.

In the evening a luncheon was served by the citizens of Innisfail, after which a number of addresses were made, the principal one being that of the Hon. Duncan Marshall, Minister of Agriculture. Mr. Marshall was in excellent form, and received an ovation when he rose to speak. He explained in detail the policy he intended to pursue in regard to the demonstration farms he had succeeded in securing authority to establish. He was frequently applauded during his address and loudly cheered when he resumed his seat. It is becoming more and more apparent that as Mr. Marshall's plans and policies are being unfolded and understood, they are receiving the approval of the farmers of the province.

One Source of Flavors in Milk.

By G. L. Martin, Professor of Dairying, Agricultural College, North Dakota.

The effects of poor ventilation in cow stables upon the development of flavors in milk is not always well understood by milk producers. As a rule if the animal is in proper health the milk will be normally pure when first drawn. But if the cow is milked in an unclean stable which is filled with vitiated air the milk will be contaminated and undesirable flavors rapidly develop.

In an endeavor to determine the relation between poorly ventilated cow stables and the development of bad flavors in milk, the writer made extensive investigations with quite definite results.

The plan of the experiment was to obtain samples of milk from cows kept in well ventilated dairy barns and from cows kept and handled by methods commonly found in barns where no system of ventilation was provided. These samples were collected in the stables as the cows were milked, put into sterilized glass jars and kept for several days in surroundings where no further contamination was possible. Each sample was examined regularly every twelve hours with the following results which are an average of the findings from several hundred samples.

	Well Ventilated Stables	Poorly Ventilated Stables
Clean natural sour		
flavor	93%	38%
Stable flavors	0%	45%
Stale musty flavors..	0%	17%
Slightly Ensilage		
flavors	7%	0%

It will be noted that only 38 per cent. of the milk from the poorly ventilated stables gave a clean flavor and that 62 per cent. of the milk showed a most filthy contamination. If the cows are kept and milked in unsanitary surroundings, the milk will absorb the stable odors before it can be removed to the milk room as these results plainly indicate.

The presence of an ensilage flavor was detected in a few samples from the well ventilated barns; however, this flavor passed off within a short time, leaving no objectionable effects. In case of the poorly ventilated stables if any such flavor was present it was entirely covered up by the very objectionable stable flavors. In every case where stable flavors were detected, it was a noticeable fact that they increased with the age of the milk. This was due to the fact that such flavors are produced from the rapid development of the undesirable bacteria.

These results only emphasize the vital necessity of having pure air in cow stables and in abundance. All that is required is to have the stables properly ventilated, which can be done with very little expense. Fresh pure air is an absolute necessity, both from the standpoint of health of the animals and the production of pure, clean and wholesome milk.

If butter has been properly worked it will show moisture only in very finely divided beads, not in large drops. There should be no milkiness of appearance.

A churn that is not properly scalded before each churning is liable to introduce enough germs into the butter to hasten its spoiling.

Cream should always be put into the churn warmer in the winter than summer. In hot weather the temperature is likely to increase during churning, and in cold weather to go lower.

See that the salt used for butter-making does not convey taints to the butter. Salt absorbs large quantities of moisture from the air, and if kept where there are bad odors it is almost sure to become infected with them.

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Breeders and feeders of live stock are invited to contribute their experience. We wish to make this department of the greatest value to its readers, and can do so only with the help of our subscribers.

Live Stock Associations Deserving of Greater Consideration.

In both Manitoba and Saskatchewan there are provincial live stock associations. In Alberta there are two organizations that claim provincial standing. The dates for the annual meetings this year have been announced for some time now, and we would remind our readers that every farmer in the West who is a producer of live stock should be keenly interested in these forthcoming live stock gatherings. The annual meetings of the Manitoba associations will be held in Brandon during the week of the winter fair. The Saskatchewan meetings will be held in Regina at the time of the Saskatchewan winter show. The Alberta meetings will be held in Calgary the third week in April at the time of the spring fat stock show of that province. An effort is being made in each case to have good meetings and, to say the least, they are deserving of more support at the hands of farmers generally than has been the case in the past.

There may be a feeling that these associations are simply for the breeders of purebred stock. This is a big mistake. By joining together the live stock producers feel that they can, collectively, encourage greater activity in their industry and bring about needed improvements quicker and better than by acting as individuals. The associations need more members. They are not organized for the benefit of the breeders of purebred stock alone. They believe, however, that the more purebred sires and dams that are used the sooner will marked improvement take place in market animals, whether horses, cattle, sheep or swine. Besides advocating and encouraging the greater use of purebred breeding animals there is much other important work to do.

Manitoba, especially, is preparing for a splendid series of breeders' meetings at the time of the winter fair. Of great interest to the cattle, sheep and swine breeders will be the discussion on the report of the abattoir commission which will have been presented to the local legislature before then. The continuance of the sheep sales inaugurated last year will also be up for discussion.

The Horse Breeders' Association of Manitoba has faithfully sought the enforcement of the Stallion Enrollment Act and but for its attention many prosecutions that have been made probably would not have been effected. Some advanced legislation is being asked for this year, which needs the support of every one interested in the improving of the horse stock of the province. Amendments to the Stallion Enrollment Act, embodying the following features, will be asked for as follows: 1. That no grade stallion service fee can be legally collected after January 1, 1915; 2. That no grade stallion be enrolled; 3. That the fees for enrollment of stallions up to Dec. 31, 1914, be, for purebreds, \$2.00; re-enrollment, \$1.00; grades, \$5.00; re-enrollment, \$1.00. The Association asks that everyone interested in the advancement of the horse industry in Manitoba will speak personally to his local member asking for his support to these changes when they come up in the provincial Legislature. It is needless to say that these changes are being asked for only with the idea of improving the horse business. All know that there are a great many stallions standing for service that should have been gelded when colts. It is proposed that the money received from the increased fees shall be used in prosecuting offenders of the law.

The various questions that will come

BREEDERS' DIRECTORY

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IMPROVED YORKSHIRE SWINE, at Cherry Grove Farm, Jas. J. Stewart, Gladstone, Man., Proprietor. Herd boar (imp. in dam) bred by Earl of Rosebery, Dalmeny Park, Edinburgh. Young stock always on hand.

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ROBERT REID, Forrest Station, Man., breeder of Percherons. Port de Vendome at head of Stud, Championship for stallion and four mares, Brandon Fair, 1908 and 1909. Young stock for sale.

GEO. GRAY, Crandell, Man., breeder of Clydes Imp. "Wyomyo," winner of 1st at Brandon summer fair, also 1st at winter fair at head of stud.

MORTSON BROS., Fairlight, Sask., have Yorkshire hogs for sale, young and old, both sexes. Showed grand champion Brandon Fair. Prices according to quality of animal selected.

H. H. SIMPSON, Sunnyside Stock Farm, Beresford, Man., breeder Shorthorn cattle. Herd headed by Nobleman (imp.). Seven choice bull calves, also cows and heifers for sale.

THOS. SANDERSON, Evergreen Farm, Holland, Man., Breeder of Shorthorns, Shropshire Sheep, Yorkshire Pigs and S.C. Brown Leghorns. Write for prices.

F. MURDOCK, Spring Bank farm, Greenway, Man., breeder of Shorthorn Cattle, Shropshire Sheep, Poland China Hogs, and Scotch collie Dogs.

JOS. COCKRIELL, Box 13, Holmfild, Man., breeder of high grade Oxford Down Sheep. Ram lambs for sale. Twelve firsts Killarney 1908.

J. A. KILLOUGH, Riverside Farm, Pense, Sask., breeder of Yorkshire and Tamworth swine. 30 pure-bred Berkshire, Yorkshire and Tamworth boars fit for service, for sale.

HOLSTEIN AND HEREFORD CATTLE, also **SHEPHERD PONIES**. Pioneer prize herds of the West. Pony vehicles, harness, saddles. J. E. Marples, Poplar Park Farm, Hartney, Man.

W. ALISON, Meadowside Stock Farm, Deloraine, Man., breeder of Clydesdales, Shropshire sheep and large improved Berkshire swine. Young animals from imported stock for sale.

BERKSHIRE HOGS, Sunnyside Farm, Gladstone, Man., J. K. McLennan, Prop. Young stock for sale.

HOLSTEIN-FRIESIAN CATTLE — Bulls and heifers for sale. W. H. Mullins, Ponoka, Alberta.

TAMWORTH HOGS—Frank Orchard, Graysville, Man. Prize-winning stock for sale. Both sexes, all ages, trio not akin.

P. McGRATH, Oak Bluff, Man., breeder and importer of Poland China hogs. Write your wants.

J. MORISON BRUCE, Tighnduin Stock Farm, Lashburn, Sask., breeder of Clydesdales and Milking Shorthorns.

COLIN D. REX, Parlington Farm, Elkhorn, Man., breeder of Shorthorns. Herd headed by imported Baron's Pride—28855.

JOHN TURNER, "Bonnie Brae Stock Farm," breeder of Polled Angus Cattle. Farm one mile west of station, Carroll, Man.

W. HARDY, Fairview Farm, Roland, Man., breeder of registered Clydesdales, Ayrshires and Yorkshires. Stock for sale.

W. H. ENGLISH, Harding, Man., breeder of Shorthorn cattle, Yorkshire pigs, Rocks and Buff Orpingtons.

D. SMITH, Gladstone, Man., breeder of Yorkshire Swine, Jersey and Shorthorn cattle, Shire horses and Pekin Ducks.

H. F. CALDWELL, Roslyn Stock Farm, Dauphin, Man., importer and breeder of Shorthorns. Stock for sale at all times.

ALEX. WOOD, Manor Hill Farm, Souris, Man., importer and breeder of Oxford Down Sheep.

SPRUCE BANK STOCK FARM, Shorthorns and Berkshires for sale. R. L. Lang, Oak Lake.

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J. T. TULLY, Reaburn, Man., breeder of Ayrshire cattle.

C. G. BULSTRODE, Mount Farm, Qu'Appelle, Sask., breeder of Berkshire swine.

WALTER JAMES & SONS, Rosser, Man., one two year old Shorthorn bull; several younger ones and heifers of all ages for sale at present. Inspection invited. A few Yorkshires lately farrowed at \$10.00 each when ready to ship.

H. HANCOX, Roseau View Stock Farm, Dominion City, Man., breeder of Holstein-Friesian cattle. Sir Modest Colantha Payne, winner of first and champion at Winnipeg and Brandon 1910, at head of herd. Bull calves for sale.

GRANDVIEW STOCK FARM—Shorthorns for sale at farmers' prices. Sixty head to select from; Alberta bred. Farm also for sale. Jas. Wilson, Innisfail, Alta.

D. ALLISON, Stronsa Stock Farm, Roland, Man., breeder of Shorthorns and Berkshires. Young stock for sale.

R. C. HENDERS, Morningside Farm, Culross, Man., breeder of Shorthorns and Berkshires. Breeding stock for sale.

M. C. WEIGHTMAN, Lindisfern Stock Farm, Morden, Man., breeder of Shire horses and Aberdeen Angus cattle.

WM. GRAYSTON, Mount Pleasant, Newdale P.O., Man., breeder of Shorthorn cattle. Young stock for sale. Write.

GEO. ALLISON, Burnbank Stock Farm, Burnbank, Man., breeder of Shorthorns and Leicesters Farm 7 miles from Elkhorn.

JOHN STRACHAN, Up Hill Stock Farm, Pope, Man., breeder of Shorthorn Cattle and Yorkshire Swine. Young stock for sale.

ABERDEEN ANGUS CATTLE at Bellview Farm. J. S. McKelvie, Prop., Brandon, Man. Bulls, for sale.

J. A. FRASER, Maple Grove Farm, Portage la Prairie, Man., breeder of Shorthorn Cattle and Berkshire Swine. Young stock for sale.

JAMES DUTHIE, Melgund Stock Farm, Hartney, Man., breeder of Shorthorns and Berkshires. Stock for sale.

A. D. McDONALD, Sunnyside Farm, Napinka, Man., Shorthorns, Berkshires, Yorkshires. Young hogs for sale.

G. LESS FERGUSON, Avondale Stock Farm, Souris, Man., breeder of Shorthorns, Clydesdales and Berkshires. Young stock for sale.

YORKSHIRE HOGS—M. Smeltzer, Stratheona, Alta., Sweepstakes boar at Edmonton Exhibition. Correspondence invited.

D. A. FRASER, Lake Louise Stock Farm, Emerson, Man., breeder of Ayrshire cattle. Young bulls for sale.

J. A. NICOLL, Rossendale, Man. Breeder of Shorthorn Cattle and Yorkshire Swine. Young stock for sale. Write.

G. H. CAMPBELL, Reston, Man., breeder of Clydesdale Horses, Yorkshire Swine and Barred Rocks.

RED POLLED CATTLE, Young bull for sale. J. H. & W. E. Elliott, Lake View Stock Farm, Irma, Alta.

DUNFIELD BROS., Dauphin, Man. Ayrshires, White Wyandottes and Bronze Turkeys. Young stock for sale at right prices.

A. E. HOOD, Oak Lake, Man., Breeder of Shorthorn Cattle.

R. J. BRAY, Lenore, Man. Breeder of Shetland Ponies.

ROBERT KERR, Virden, Man., Breeder of Clydesdales and Shorthorns.

FRED T. SKINNER, Indian Head, Sask. Shorthorns, Shropshires and White Wyandottes.

RICHARD LEA, Bridge Creek, Man. Shorthorns and Berkshires. Stock for sale.

FRANK MILBURN, Virden, Man., breeder of large English Berkshires.

E. F. DOBBYN, Riverside Stock Farm, Melita, Man., breeder of Hereford Cattle.

J. M. DOUGLAS & SON, Tantallon, Sask. Breeders of Clydesdales and Shorthorns.

T. E. WALLACE, Portage la Prairie, Man. Scotch Shorthorns. Stock for sale.

GEO. GORDON, Muirton Farm, Oak Lake, breeder of Shorthorns. Choice young stock.

T. D. TAYLOR, Mount Pleasant Farm, Minnedosa, Man. Shorthorns and Berkshires.

W. N. CROWELL, Napinka, Man., breeder of Shorthorns, Berkshires. Stock for sale.

GUS WIGHT, Evergreen Farm, Napinka, Man. breeder of Clydesdales and Shorthorns.

ABERDEEN ANGUS, Berkshires and Buff Orpingtons. Lew Hutchinson, Duhamel, Alta.

ADAMSON BROS., Gladstone, Man., breeders of Shorthorns. Young bulls for sale.

J. V. BOYD, Regina, Sask., breeder of Holsteins. Young stock for sale.

HOLSTEIN-FRIESIAN CATTLE. Bulls for sale. Homer Smith, Box 1894, Winnipeg.

J. S. RENWICK, Carberry, Man., breeder of Shorthorn Cattle. Young stock for sale.

W. L. McNAIR, Progress Point Farm, Keyes, Man. Shorthorn Cattle. Young stock for sale.

S. BROWN, Culraven, Kirkcudbright, Scotland, breeder and exporter of heavy Clydesdale stallions and mares. Also the best class of Hackney stallions and mares, sensational show harness horses and matched pairs.

SHROPSHIRE AND LEICESTER SHEEP Yorkshire hogs and Bronze turkeys. Young, stock for sale; turkey eggs and birds in season. M. I. Colton, Tregarva, Sask.

HEREFORD CATTLE—Burden, 8426, champion at Calgary Fair, 1910, at head of herd. Stock for sale, both sexes, all ages. Oswald Palmer, Lacombe, Alta.

TAMWORTH HOGS—Geo. Campbell, Killarney Man. Stock for sale, both sexes, all ages Sweepstakes boar at Brandon and Killarney Fairs

SHORTHORN CATTLE AND B.P. ROCK FOWLS Two young bulls and a few cows for sale. J. H. Mellick, Box 1765, Edmonton, Alta.

JOHN MATTHEWSON, Virden, Man., breeder of pure bred English Berkshires.

ALEX. D. GAMLEY, Griswold, Man., breeder of Leicester sheep. Write for prices.

K. M. WEBSTER, Cartwright, Man., breeder of Clydesdales. Stock for sale.

GEO. RICHARDSON, Nutana, Sask., breeder of Shorthorns. Bulls for sale.

D. McFARLANE, Oak Lake, Man., breeder of Aberdeen-Angus Cattle.

G. W. ORSER, Wauchops, Sask. Choice Shorthorns of both sexes for sale.

THOS. McCARTNEY, Longburn, Man., breeder of Ayrshires. Write your wants.

T. R. TODD, Hillview, Man., Shorthorn Cattle and Oxford Sheep. Young stock for sale.

F. J. COLLYER, Welwyn, Sask., breeder Aberdeen Angus. Young stock for sale.

STEEL BROS., Glenboro, Man., breeders of Ayrshire cattle. Young stock for sale.

H. H. KEYS, Maple Avenue Farm, Pense, Sask. Angus cattle. Young stuff for sale.

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"The Farmer's Cow"

Herd headed by Major Bragg, No. 18502, champion at four state fairs last year. Stock of all ages for sale.

Imported Yorkshires

Young boars and sows, prize winners themselves and from prize winning stock, for sale. Breeding females include the champion sow at Edmonton Fair, 1910.

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P.O. Box 1632, Edmonton
Also some good farmlands for sale.



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Of large English Berkshires. The home of the big easy keeping, early maturing, bacon type kind. The Berkshire Headquarters of the West. I am now booking orders for early spring pigs a bunch of choice mature sows being bred to the two best stock boars in the Province, pairs unrelated supplied.

J. A. MCGILL, NEEPAWA, MAN.

Brampton Jerseys

Canada's Greatest Jersey Herd

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Leicester Rock header was champion at Alberta Provincial Exhibition, 1910. Prize winning Shropshires in breeding flock. A new shipment from Ontario will arrive about Oct. 1. Correspondence from interested parties solicited.

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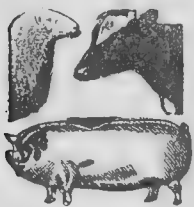
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12 bulls from 12 months to 3 years, all sired by imported Scotch bulls. Several out of imported dams.

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Elsie Stock Farm, NINGA, MAN.
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STOCK ALWAYS FOR SALE



Holsteins, Yorkshires
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Some good ram
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Glenburn Farm, Pense, Sask.

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Clydesdales

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ages for sale.

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draft horses in Western Canada. The firm has
imported many grand champions, and its re-
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Thoroughly acquainted with the different
breeds of live stock and their values. Will
conduct sale anywhere in Manitoba or N.W.T.
on reasonable terms. Write before fixing date
of sale.

CATTLE FATTEN QUICKER
—take on weight faster—make better
beef—when dehorned. Cows give
more milk—and half the danger in
shipping by rail or boat is
eliminated.

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219 Robert St. Toronto, Ont. Late of Picton, Ont.

up for discussion at all these meetings
are those which should engage the at-
tention of every western farmer. The
presence of a large crowd will lend en-
thusiasm to the meetings and more
memberships will supply the "where-
withal" to carry on with greater vigor
the work which has been begun.

Customary Doses of Drugs for Farm Animals.

The following table, taken from the
I. H. C. Almanac and Encyclopedia for
1911, gives a list of doses of various
drugs. In this table the following ab-
breviations are used: oz. stands for
ounce; pt. for pint; lb. for pound; gr. for
grain; dr. for dram; dp. for drop. This
table might well be clipped out and
pasted in the stable, where it could be
used for purposes of reference.

Name of Drug	Cattle	Sheep	Horses	Hogs	Dogs
Acetanilid.....	2 dr.	.5-1 dr.	1-2 dr.	.5-1 dr.	3-7 gr.
Aconite Tincture.....	20-30 dp.	10 dp.	10-30 dp.	5 dp.	1-3 dp.
Alcohol (see Brandy).....					
Alum.....	3 4 dr.	40 gr.	2-4 dr.	40 gr.	15 gr.
Ammonia Water.....	1 oz.	2 dr.	.5 oz.	1 dr.	.5 dr.
Ammonia Aromatic.....	2 oz.	1 2 dr.	1 oz.	1-2 dr.	20-60 dp.
Anisced.....	1.5 oz.	1-2 dr.	1 oz.	1 dr.	15 gr.
Arnica Tincture.....	1 oz.	2 dr.	.5-1 oz.	1 dr.	7-20 dp.
Arsenic.....	5 dr.	5-20 dp.	2-4 dr.	5-20 dp.	1-5 dp.
Asafetida Tincture.....	3 oz.	.5 oz.	2 oz.	2 dr.	1 dr.
A. opine.....	1-2 gr.	1-15 gr.	1 gr.	1-15 gr.	1-40 gr.
Belladonna Fluid Extract.....	1 dr.	20 dp.	.5 dr.	3 dp.	1 dp.
Boracic Acid.....	3 dr.	20 gr.	1-3 dr.	15 gr.	8 gr.
Brandy.....	4 oz.	1-2 oz.	2-4 oz.	1-2 oz.	1-4 dr.
Calcium Phosphate.....	1 oz.	1-2 dr.	2-4 dr.	1-2 dr.	5-20 gr.
Calomel.....	1-2 dr.	5-20 gr.	1 dr.	5-20 gr.	1 gr.
Camphor Spirit.....	1 oz.	2 dr.	2-4 dr.	15 dp.	10 dp.
Cantharides.....	5-20 gr.	4 8 gr.	5-20 gr.	4-8 gr.	1-2 gr.
Carbolic Acid.....	1-2 dr.	10-20 dp.	.5-2 dr.	5-15 dp.	3-8 dp.
Castor Oil.....	1 pt.	2-4 oz.	1 pt.	2-4 oz.	1-2 dr.
Chalk.....	2 oz.	1-2 dr.	.5-2 oz.	1 dr.	.5-1 dr.
Charcoal.....	1-2 oz.	2-4 dr.	1-2 oz.	2 4 dr.	20-60 gr.
Chloral Hydrate.....	1-2 oz.	1-2 dr.	1-2 oz.	1-2 dr.	5-20 gr.
Chloroform.....	1-2 dr.	25 dp.	1-2 dr.	20 dp.	10 dp.
Cocaine.....	10 gr.		5-10 gr.		
Cod Liver Oil.....	3-8 oz.	3-8 dr.	2-6 oz.	2-6 dr.	1-3 dr.
Copperas.....	2 dr.	20 gr.	1 dr.	10 gr.	
Copper Sulphate.....	2-4 dr.	20-30 gr.	2-4 dr.	20-30 gr.	1-2 gr.
Digitalis.....	10-60 gr.	5-15 gr.	10-50 gr.	3-10 gr.	2 gr.
Epsom Salts.....	1 lb.	1-4 oz.	.5-1 lb.	1 oz.	1-4 dr.
Ergot.....	.5-1 oz.	1-2 dr.	.5-1 oz.	1-2 dr.	1 dr.
Ether.....	1 oz.	2-4 dr.	.5-1 oz.	2-4 dr.	25 dp.
Fowler's Solution (see Arsenic).....					
Gentian.....	8 dr.	1-2 dr.	4-8 dr.	1-2 dr.	40 gr.
Ginger.....	5-8 dr.	1-2 dr.	2-8 dr.	15-60 gr.	5-20 gr.
Glauber Salts.....	1-1.5 lb.	1-4 dr.	.5-1 lb.		
Glycerine.....	3-5 oz.	5 dr.	2-5 oz.	4 dr.	1 dr.
Hydrochloric Acid.....	2-3 dr.	11-30 dp.	1-3 dr.	10-20 dp.	5 dp.
Iodide of Potash.....	1-2 dr.	10-25 gr.	.5-2 dr.	5-20 gr.	2-8 gr.
Ipecac.....	2-4 dr.	1 dr.	1-2 dr.	1-2 dr.	1-2 gr.
Iron Sulphate.....	2 dr.	25 gr.	1-2 dr.	25 gr.	4 gr.
Jamaica Ginger.....	2 oz.	.5 oz.	1 oz.		
Laudanum.....	2-5 oz.	1-4 dr.	1-4 oz.	1-2 dr.	20 dp.
Lead Acetate.....	1 dr.	25 gr.	1 dr.	20 gr.	1-2 gr.
Lime Water.....	4-6 oz.	2 oz.	4-6 oz.		1-8 dr.
Linseed Oil.....	1-2 pt.	6-12 oz.	.5-1 pt.	5-10 oz.	1 oz.
Morphine.....	5-10 gr.	1-2 gr.	3-10 gr.	1-1 gr.	1-1 gr.
Mustard.....	1 oz.	1-2 dr.	.5-1 oz.	1-2 dr.	20 gr.
Nitre.....	3-8 oz.	1 dr.	1-2 oz.	1 dr.	5-20 gr.
Nux Vomica.....	2 dr.	30-40 gr.	1-2 dr.	10-20 gr.	1-2 gr.
Olive Oil.....	1-2 pt.		1-2 pt.		2-4 oz.
Opium (powdered).....	2 dr.	6-25 gr.	1-2 dr.	5-20 gr.	1-3 gr.
Pepper.....	2-4 dr.	15-25 gr.	1-3 dr.	10-20 gr.	4-10 gr.
Peppermint Oil.....	30 dp.		15-30 dp.		1-5 dp.
Potassium Bromide.....	2 oz.	2-4 dr.	1-2 oz.	2-4 dr.	5-50 gr.
Quinine.....	1 dr.	5-10 gr.	15-60 gr.	5-10 gr.	1-2 gr.
Rhubarb.....	1-2 oz.	1 dr.	1-2 oz.	1 dr.	5-10 gr.
Saltpetre (see Nitre).....					
Soda.....	2 oz.	.5 oz.	1 oz.	2 dr.	20-50 gr.
Spanish Flies (see Cantharides).....					
Strychnine.....	2-3 gr.	1-1 gr.	.5-2 gr.		
Subnitrate of Bismuth.....	2 dr.	10-30 gr.	1-2 dr.	5-20 gr.	3-10 gr.
Sulphur.....	3-4 oz.	1-2 oz.	2-4 oz.	1-2 oz.	1-4 dr.
Turpentine.....	2 oz.	1-4 dr.	1-2 oz.	1 dr.	20-50 dp.

National Record Society for U.S.

The Canadian National Record As-
sociation in this country is to have its
counterpart in the National Society of
Records Association in the U.S., which
latter was organized at a meeting of
representatives of various breed associa-
tions in Chicago on Jan. 3. The object
of this new organization is much the
same as that of the Canadian National
Records Association, excepting, as far
as we know, it is not anticipated that
the recording of pedigrees will be done
by a common secretary. The purposes of
the new movement are briefly stated as
follows:

"The object of this society shall be
to advance the interests of all registry
associations by devising and perfecting
practical methods of preserving pedi-
grees of pure bred animals; by united
effort endeavoring to secure the enact-
ment of equitable laws relating to
record associations; by securing the
adoption of just rates by the railroads
on exhibition and breeding stock, and
also to do and transact such other busi-
ness as will, in the judgment of such
society, advance the interest of breeders
of pure bred stock through their
respective registry associations."

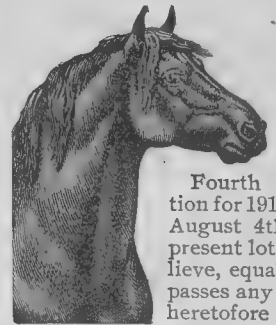
Cows in calf need nourishing feeds to
develop the unborn calves.

Feeding Yards at Fort William.

In order to comply with the law re-
quiring cattle in transit to be fed and
watered once every twenty-four hours,
the C.P.R. have been compelled to erect
feeding yards at Fort William. The ca-
pacity of these will be for 120 cars of
stock. They are simply open pens simi-
lar to those at Winnipeg. They are be-
ing provided with feeding racks and
watering facilities to be used to break
the long trip from Winnipeg to White
River. Fort William, by freight train,
should be made from Winnipeg in twen-
ty-four hours. These improvements have
come none too soon, and will be appre-
ciated by all who make through ship-
ments of live stock, east or west.

See that the brood mare has exercise
even these cold days.

DUNHAM'S PERCHERONS



Fourth importa-
tion for 1910 arrived
August 4th. Our
present lot, we be-
lieve, equals or sur-
passes any we have
heretofore collect-
ed. More horses of

bone, size and first-class quality
than ever. Numerous important
prize winners.

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FIVE STALLIONS from one to
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Owing to extreme drought, and having no hay
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treme low prices. Knowing I have got to sell is
the time for those that have got feed to take advan-
tage of securing exceedingly well-bred, grand show
animals at half-price. Apply to

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butcher animals. The old time ox of a ton in weight is outclassed by his younger and smaller rivals.

The high class hotel, cafe, restaurant and dining-car trade requires larger carcasses than the trade above referred to. They have a demand for big steaks that will cut from animals weighing upwards of 1200 pounds. This weight will give a good big rib and loin cut, the kinds that are looked for in the high class eating houses and which are included in the 75 cent to \$1.50 orders. There seems little likelihood of this demand decreasing very appreciably, but at the same time the demand for the smaller carcasses is fast increasing. Baby beef is fast growing in popularity from the standpoint of both the consumer and the producer. In St. Louis we are told that butcher weights of 600 to 800 pounds meet with most ready sale. As we come north the average weight will increase rather noticeably, but even so baby beef—young and light weight well fattened animals—commands a position at the present time heretofore taken by heavier sorts.

Judging Live Stock.

By Geo. Craig, Brookdale, Man.

In your issue of Nov. 21st there appeared an article by C. H. Hinman on the duties of the live stock judge, in which he states very clearly the duties of the fair association and the judge. As Mr. Hinman states, it is the duty of the fair association, through the secretary and superintendents of departments, to see that all animals are properly entered and shown in the classes to which they belong, and it is the duty of the judge to pass upon the merits of the animals brought into the ring by the superintendent. I fully agree with Mr.

Hinman that if the points referred to in his article were better understood and more clearly outlined, there would be much more harmony and less dissatisfaction between the fair association and exhibitor. I would emphasize and suggest that fair secretaries and superintendents carefully read Mr. Hinman's article.

Feeding the Brood Mare.

Prof. Peters Gives Advice in Agricultural College Bulletin.

Great care must be exercised in the feeding to bring the mare up to the f. l. g. time in proper condition of health. Breeders are apt to be too anxious to keep the mares in too high condition rather than to allow them to become too thin. Trouble at foaling is frequently due to no other reason than simply that the mare is too fat. This does not mean that she should be starved down to a weak condition of health, but judgment must be used with each individual in the amount of grain and hay required daily. Any of the standard rough feeds from oat straw to alfalfa hay, so long as they are clean and have been properly stored and kept free from must, are satisfactory. A variety of roughage adds to its value. For grain nothing will beat a ration of three parts crushed oats to one part of bran by weight. This may be advantageously supplemented by a bran mash or a feed of boiled barley and flax fed as the evening meal from one to three times a week. Not more than a pint of flax seed should be used in one feed. Condimental stock foods are altogether unnecessary with the above ration.



High-Class Pure-bred Percherons

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Brownlee Stock and Grain Farm

1910 winnings at Western Canada's Leading Fairs: 75 Prizes, 8 Gold Medals, 5 Silver Medals, 2 Silver Cups, 5 Diplomas.

Over 50 of the 75 prizes were first prizes.

Our stud includes winners at leading Exhibitions in the United States, and has landed First Prizes in the strongest competition throughout the Western Canadian circuit.

We can offer First Prize and Championship winners, both in males and females.

Our Stud comprises not only a lot of grand, big, weighty animals of outstanding merit, splendid quality, and fine action, but young animals of our own breeding which have won Firsts and Championships throughout the leading Exhibitions.

We have the right kind of goods and offer a square deal.

H. O. Hutchins, Keeler, Sask.

Vanstone & Rogers

Importers and Breeders of
**Clydesdales, Percherons
Belgians and Hackneys**

NOW is the time to buy a stallion of any of the above breeds and get him accustomed to his new home and owner before the season opens.

We import all our own horses and pay no middlemen's profits, so can sell you a horse a lot cheaper than most of our competitors. Our barns are full of two's and three's weighing from 1800—2100 lbs., sound as a new dollar. These were imported in August, are all acclimated and nearly every one was a prize winner in Europe, and will be in the money here. If you want something choice to spring on your opposition you should come down and look over our stock.

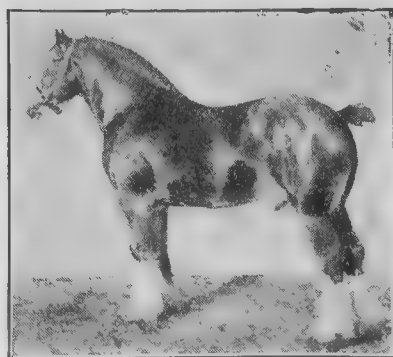
We have some choice imported Clyde fillies in foal for sale at our home barns. Fair and honest treatment to all. Every horse sold guaranteed. Write NOW

Branch at Vegreville, Alta.,

Jas. Brooks, Mgr.

Vanstone & Rogers,

Stables and Head Office, Wawanessa, Man



The J.C. Ranch

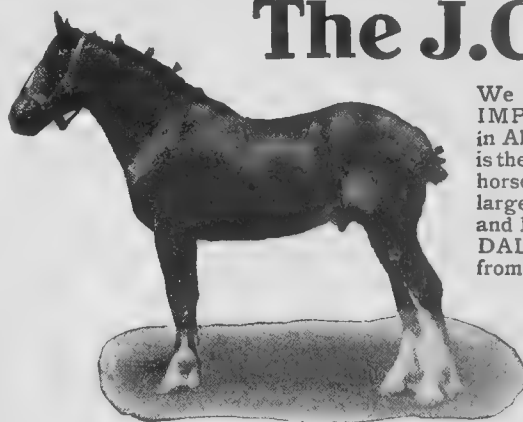
We have been BREEDING and IMPORTING CLYDESDALES in Alberta for 27 years. Our Ideal is the BIG, DRAFTY TYPE - The horse for the farmer. We have the largest bunch of both home bred and Imported pure bred CLYDESDALES west of Winnipeg to select from. Write for prices before buying.

A dollar saved is a dollar earned.

JNO. CLARK Jr.,

P.O. Box 32

Gleichen, Alta.



Sir Norton (imp.) by Montrave Ronald, out of Bess 2nd of Dalvaddy. First prize two-year-old at Calgary Fair.

Shields' Herefords

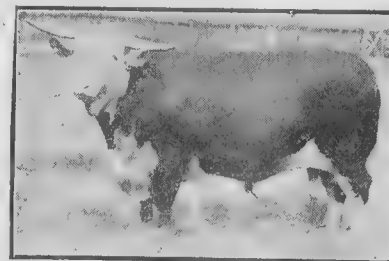
Champions of the Show Rings of
Western Canada

Herd is headed by "Domineer" and "Happy Christmas." Five young Bulls and some Cows and Heifers for sale that can't be beat for breeding stock. Young stuff by "Happy Christmas" and "Onward 5th."

WM. SHIELDS, Prop.

Box 583.

BRANDON, MAN.



HAPPY CHRISTMAS (Imp.) 5718 (21442), the unbeaten champion

SINTON'S (Imp.) CLYDESDALES

Our 1910 importation comprising 24 Stallions and 20 Mares, reached Regina from Scotland Aug. 15th. Included in the number are many prize winners and outstanding individuals by such celebrated sires as Baron's Pride, Baden Powell, Baronson, Breadalbane, Everlasting, Marmion, Mements, Montrane Ronald, Pride of Blacon, Prince Shapley, Revelanta, Royal Edward, Royal Favorite, Royal Chottina, Ruby Pride and other noted sires.

50 head (imp.) Clydesdales and 3 (imp.) Percheron Stallions to select from, ages 1 to 5 years. Prices and terms the very best possible. Stables in city.

ROBT. SINTON, REGINA, SASK.



English Shire Horses, Hackneys and Shetland Ponies

This stud includes, **Champion, Gold Medal and First Prize** horses. Have been exhibited at the leading shows of the West. Prize winners from the Shire Horse Show of London, Eng.

Homewood Farm, Grenfell, Sask.

P. B. Ross, Prop.

GLENALMOND STOCK FARM, STROME, ALTA.

Shorthorn Cattle and Berkshire Hogs

A Number of Bulls For Sale.

C. F. LYALL, Prop.



Shorthorns GREAT PRIVATE SALE

Special prices and terms for choice breeding Shorthorns to make room for winter. Come and see them or write for particulars.

Also prize-winning Barred P. Rocks. Eggs in season.

R. W. Caswell, Star Farm, BOX 1283 Saskatoon, Sask. Phone C.N.R., C.P.R. 1283 G.T.P.



Hestercombe, Taunton, England, the seat of Hon. E. W. B. Portman, and his famous herd of Devon Cattle.

Licensing Unsound Stallions.

Some farmers are interested in cattle some in hogs and some in sheep; all are interested in horses. There must be horses to work the land; and, aside from this, the buying and selling of horses is a rapidly increasing and profitable business. Perhaps there is no branch of the live stock industry that more people would be interested in seeing improved than the horse stock of Canada. Not that no improvement is taking place, but that there are many things operating against the best good of the horse-breeders of the country. Here in the West, for instance, each of the prairie provinces provides for the licensing of grade stallions. It will be a splendid thing when the time is ripe for making it impossible legally to stand a grade animal of any kind for public service. At the coming session of the Manitoba Legislature, the Manitoba Horse Breeders' Association are asking for legislation to make it impossible to enroll a grade horse after 1915.

Another thing which works out to the distinct disadvantage of greater improvement in horse breeding is the fact that unsound horses are licensed for breeding purposes. The feasibility of asking the provincial governments to amend the Stallion Acts in this regard is a perennial subject for discussion. It promises to come up at the annual meetings this year even stronger than ever. Different arguments are advanced against such a move, that is, of asking the governments to make it illegal to stand a stallion that is affected with a contagious disease or an hereditary unsoundness. One argument is that the expense of having all the stallions officially examined would be so great as to make the scheme impracticable. Another of the repeated arguments is that

it would be difficult to know what are hereditary unsoundnesses. Neither of these arguments, in our opinion, are of sufficient weight to make such a measure impracticable or in any sense unjust.

Horse raisers in Western Canada find themselves in a rather peculiar position. A large number of states in the U.S. have passed stallion legislation to the effect that it is illegal to stand unsound horses. This means that what unsound horses were doing service in those states previous to the enforcement of the Acts have to go elsewhere for a job, either to adjoining states or into Canada, where there is no such legislation. There can be but little doubt that, with the continued enforcement of these laws across the line, and the continued open door for unsound horses in the Canadian West, this country will become more and more a dumping ground for their unfit horses. The case of North Dakota is a fitting answer to the arguments referred to above. A year ago a law came into force making it illegal to stand a horse with hereditary unsoundnesses. A Stallion Registration Board was created, with the professor of animal husbandry of the agricultural college at Fargo as managing secretary. Pure bred and grade stallions are enrolled, but before a license certificate is issued the horse must pass an examination by an official veterinarian, "and be free from all infectious, contagious or transmissible diseases or unsoundnesses." These defects are defined in the statute in the following language:—"The presence of any one or more of the following named diseases shall disqualify a stallion from public service, and are hereby defined as infectious, contagious or transmissible diseases or unsoundnesses for this act:—Cataract, amaurosis, laryngeal hemiplegia (roaring or whistling), chorea (St. Vitus dance, crampness, string-halt), glanders or farcy, maladie du coit, urethral gleet, mange, bone spavin, side bone, and curb when accompanied by curby hock."

Now, as to expenses. A fee of \$2.00 is charged for enrolment certificate; \$1.00 for renewal, \$5.00 for the veterinary inspection, and 50 cents for transfer of license. These fees are payable to the Registration Board, and constitute the fund for the enrolment work. The financial statement for the first year was most satisfactory. Total receipts amounted to \$18,120.50, the largest item being for examination fees—\$12,355.00. The total expenditure of the Board for the year amounted to \$10,188.12, leaving a surplus of \$7,932.38. This should be an effective answer to the argument that veterinary inspection would be too expensive to make such a scheme practicable.

The method of conducting the examinations can best be described by quoting the section of the Act dealing with that phase of the work, which is as follows:—"The veterinary examination of the stallions provided for in this Act must be done by a qualified graduate veterinarian, who shall be in the employ of the Stallion Registration Board. The stallions must be brought for examination to the nearest point where the inspector will be stationed on specified dates. The stallion owner must be given at least ten days' notice of the dates when the inspector will be at specified towns of the county in which the

IMPORTED CLYDESDALES

I have again arrived from Scotland with a very select shipment of Clydesdales. These, I purchased myself, direct from the dealers. They were very carefully selected, none being taken but the large sized, clean legged fellows, with good colors. They are the kind that suit Canadian customers, in fact, will suit the most fastidious Clydesdale critics. All who have seen this lot say they are the best lot that I have ever brought over. Last summer, mares imported by me won leading honors at Calgary, Edmonton, MacLeod, and Lethbridge. They were awarded no less than seven first prizes, champion and reserve championship at these four fairs, one mare alone winning \$149 in prize money at one fair. These winnings speak for themselves, and show the kind of horses I fetch over. Besides having horses that can win in the show ring, I take care to get them "bred in the pink." In this lot, such sires as Everlasting, Revelanta, Up-to-Time, Royal Aldie, Marcellus, Baron o' Buchlyvie, Baron Gibson, etc., are represented. Knowing Scotland as I do, I can buy horses from good strains of mares, and also save the middleman's profit. Because of this fact, I can put them on the market here at easier prices than most importers. Come and see, or write for particulars.



BEN FINLAYSON

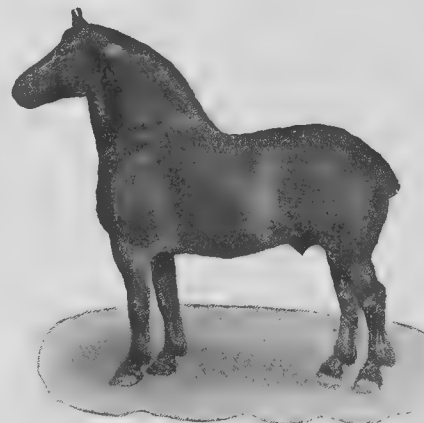
LACOMBE

ALTA.

Deloraine Importing Barns

I have just landed a shipment of Percheron and Belgian Mares and Stallions, direct from France and Belgium, personally selected by myself and the best I could buy, having size and quality combined and first-class goers. I am now ready to do business in the same way as I always have—small profits, quick returns and square dealing being my motto.

F. J. HASSARD, V.S., Deloraine, Man.



New Importation of Clydes, Percheron and Belgian Horses



Just arrived at my barn at Brandon, direct from some of the leading breeders one of the best car-loads of Mares and Stallions ever imported into Western Canada.

As these have been bought at the lowest possible price, I can afford to sell from 25 to 30 per cent. cheaper than anyone else in the business.

I have mares from one to three years old, weighing from 1,400 to 1,600 lbs.; and stallions from one to five years old, from 1,300 to 2,100 lbs.

Some of the mares are bred to leading sires in Belgium and are sure in foal.

As room has to be made at once for another importation in the fall, I will sell at lowest possible profit.

I have stallions at \$1,000 up, and mares proportionately cheap.

As I do my own selling, buyers may rest assured that they have no commission men to pay.

D. SHAW-ANDERSON, BEAUBIER STABLES, Brandon, Manitoba

A New Horse or Kendall's Spavin Cure?

Warren, Ont.
Feb. 11th.

"I had a horse that had a Spavin for a long time and I had tried nearly every kind of medicine when a neighbor told me to use Kendall's Spavin Cure, which I did and it acted wonderfully."

M. ROSENTHAL.

Kendall's Spavin Cure is no untried experiment, but is the world's standard remedy for all Swellings, Soft Bunches and Lameness in horse and man.

Used the world over for 40 years.

Every farmer, stockman, expressman, livery proprietor and horse owner generally should keep it always on hand.

\$1. a bottle—6 for \$5. Ask your dealer for free copy of our book "A Treatise On The Horse"—or write us

DR. B. J. KENDALL CO. 56
Enosburg Falls, - Vermont.

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

Fleming's Spavin and Ringbone Paste

Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of

Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages, durably bound, indexed and illustrated. Covers over one-hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

FLEMING BROS., Chemists
39 Church St., Toronto, Ontario

Messrs. Hickman & Scruby

Court Lodge, Egerton, Kent, England

Exporters of pedigree live stock of every description. Horses a speciality. If you want Shires, Clydesdales, Suffolk Punches, Belgians, Percherons, Hackneys or Welsh Ponies, it will pay you to write us for a quotation.

Illustrated catalogues free on application

Homewood Stock Farm

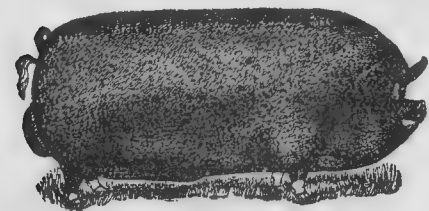
Galloways, Berkshires, Oxford Down Sheep and Angora Goats

I have a good lot of Berkshires and Angora Goats for sale. A Spanish Jack for sale, or exchange for work horses.

Farm two miles from town. Phone 277, ring 2

James Bray
Portage la Prairie Man.

Large English Berkshires



We have a number of choice young Berks ready for shipment, pairs and trios not akin. Single pigs \$10 each, pairs \$18, trios \$25. Boars and sows from champion sow, \$15 each.

McGregor & Bowman, Forrest, Man.

Business Jerseys

The Best in the West

In our herd we have some of the best Jerseys that money could buy in the United States of America. Mayflower Noble, our herd header, won first at the National Dairy Show. We have a yearling heifer that was first at the same exhibition. Pet's Wonder, four years old, is a first prize winner at State Fairs; also her dam, Morocco's Pet.

This is the kind of blood that predominates in our breeding herd. We can supply anything from one animal of either sex to a car load.

Joseph Harper & Sons
Kinley, Sask.

AYRSHIRE CATTLE

AT COPFORD STOCK FARM

I have sold all my young Ayrshires except a bull calf and four year old bull, Prairie King. Farm six miles south-east of Pense and six miles south-east of Grand Coulee. Phone Coulee Rural from Pense. P.O. Box 183.

F. H. O. HARRISON, Pense, Sask.

MEN WANTED

We want a reliable man in each locality to introduce and advertise our Royal Purple Stock and Poultry Specimens, and other goods, direct to consumers as well as to merchants. \$15 a week and expenses or commission. No experience needed. The largest advertised goods in Canada. Write at once for particulars.

W. A. JENKINS MFG. CO. - LONDON, ONT.

owner of the stallion resides. The inspector must not make known the results of the inspection of a stallion to the owner at the time of inspection, but report to the secretary of the Stallion Registration Board, who will notify the owner at the time he grants or refuses to grant him a license certificate for his horse."

Prohibiting the use of unsound stallions in North Dakota is working out well. Similar statutes have brought about improved conditions in other states. There is no reason why a similar Act should not work equally well in the prairie provinces of Canada. If there is one thing more than another that will hurt the horse business, it is the use of inferior sires. To many of our readers legislation similar to that in force in North Dakota would seem a bit drastic. But it is coming, if we can read the future. Western horse breeders will not be content with an inferior product. So long as diseased and unsound stallions are travelling the prairies, progeny of like conformation and other defects must be expected. This question will again be up for discussion at the annual meetings of the horse breeders' associations this winter and spring. Think it over.

The Brood Sow in Winter.

Next year's pig crop will be made this winter. If the sow gets the right kind of treatment from now until spring the chances are that she will farrow a good healthy litter of pigs that will make money for their owner when sold in the fall. On the other hand those sows that are shut up in a dark, damp, and cold place, with little or no chance for exercise, and fed on nothing but barley chop or shorts, will be very much handicapped from the standpoint of bringing forth a healthy litter. Just now we are receiving a good many letters asking about what is the matter with pigs that are fed on too carbonaceous a ration and with too little exercise and cramped quarters. One man says that his pigs seem to have quit growing, they get pot-bellied and do not do well at all. The trouble is too much barley chop and shorts and too little exercise. It will have a similar effect on the brood sows. They perhaps will not show it so much in themselves but their litters in the spring will.

During pregnancy the sows need an abundance of exercise. There are lots of cold days that they will not be out much, but they should have the opportunity. If their winter quarters are on the inside of a straw pile they will get out of their own accord. If their winter house is a building, there will be many days that they can be out. Most good hog raisers will have a runway provided in the building with small openings at the ground on the south side. Feed them oats and barley scattered on the ground or in a trough just as far from their sleeping quarters as possible. This will compel them to take some exercise in going to and from their feed. A good mash feed or thick slop of shorts and bran, and also some oats and barley meal, once a day is a good thing. Heat the slop feed if possible so that it will not freeze in the troughs. And then give a small amount of salt and have charcoal in the pens. This is more essential in winter than in summer for in summer hogs are always rooting around and in this way they get considerable mineral matter. A poorly kept sow this winter will mean weak pigs in the spring. Early pigs need to be strong and they will be if the sows are right to begin with and then wintered properly.

One thousand dollars has been added to the prize lists of the Alberta provincial spring live stock shows, to be held at Calgary from April 18 to 21.

The annual meeting of the Clydesdale Association of Canada will be held at the King Edward Hotel, Toronto, on Feb. 3. The present vice-presidents for our western provinces are as follows: For Manitoba, John Graham; Saskatchewan, W. H. Bryce; Alberta, J. A. Turner; B. C., Capt. G. L. Watson.



Gold Medal offered by the Percheron Society of America. Won at Winnipeg Industrial.

In addition to the Champions of Western Canada, we now have in our barns 12 head of choicest stallions and mares which we were able to buy at the Chicago International Live Stock Exposition. We are in the horse business; come and see them. We invite inspection.

Over 30 Years in the Business Our Motto: "Fair Dealing"
Call, wire or write

COLQUHOUN & BEATTIE
831 Princess Ave., Brandon, Man.



Reverse Side of Medal.

Clearwater Stock Farm

(FORTY REGISTERED PERCHERONS)

Headquarters for Percherons
In Saskatchewan

THIS is the picture of one of our last importation of Nov. 15th—Marquis, 65780—a two year old, weighing 1825 lbs., girth 8 feet 1 inch.

This Percheron is sold to Mr. C. A. Browning, of Lumsden, Sask., but we have others of similar quality and weight, French, American and home bred.

Anyone wanting Percherons should see our horses before buying, as our prices are reasonable and terms arranged to suit purchaser. Write or phone us if you cannot come.

W. E. & R. C. UPPER, North Portal, Sask.



Percherons and Belgians

Imported Direct from the International Live Stock Exposition

THIS consignment was selected from the greatest string of Percherons and Belgians ever shown in America. In the bunch are some of the Prize Winners.

Farm one mile from Station. Local and long distance 'phone. Write or call on

John H. Stout, "The Oaks," Westbourne, Man.

Percheron Stallions

A choice collection of stallions and mares of all ages that are bred as well as the best and grown out in the Northwestern climate. These horses combine size, action, bone and quality to a remarkable degree. Owing to our method of raising horses we experience absolutely no trouble from failure to breed, and our customers are always satisfied. We invite buyers to visit us whenever possible and will show you a bunch of horses that will compare with the best. Our horses won a big share of the ribbons at the Winnipeg and North Dakota fairs this year. Write us your wants.

E. O. & O. O. ELLISON & SONS,
LA MOURE - - - NORTH DAKOTA.



Substitutes for Skimmed Milk in Feeding Calves.

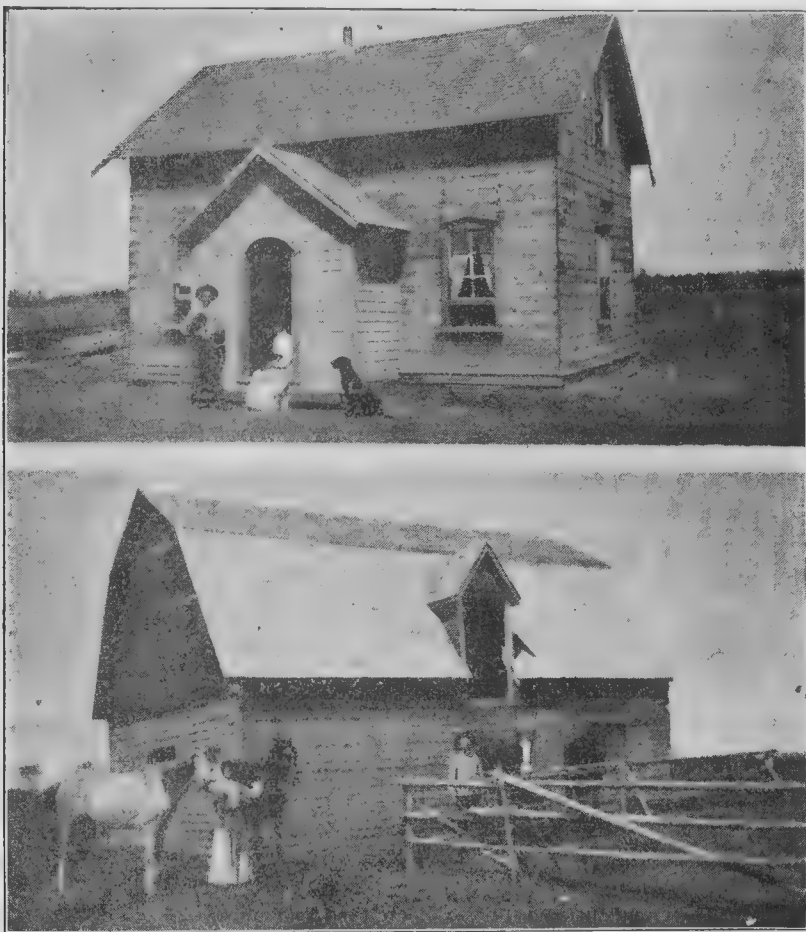
H. J. S. Sonningdale, Sask., writes:— "I have the chance of taking several young calves at about three days old, but have very little milk that I could feed them, and that only skimmed milk from the separator. Is there anything on which I could rear them in the shape of gruel in substitution for the milk, and how should it be made?"

No one will try to dispute the fact that milk is the best food for calves or any other class of young animals. However, it is possible to raise calves on skim milk, and even without very much of that. Skim milk is the best substitute for whole milk, but that may also be dispensed with after a very short time, from a month to ten weeks. There are different kinds of calf meals manufactured, the composition being such as to replace the food elements in whole milk. In England nearly every farmer uses some kind of calf meal along with skim milk, which our correspondent appears to be short of. The following mixture

completed by the North Carolina Station in 1909. In this calf feeding test the ration was composed principally of rolled oats as a substitute for the milk. During the first week the calves were given 10 pounds of whole milk per head per day; during the second week, 8 pounds of whole milk and 4 ounces of rolled oats, the rolled oats being prepared by adding boiling water to them at the rate of one gallon of water to 12 ounces of rolled oats, and the mixture then allowed to stand until cold enough to feed. Following this, the milk ration was decreased and the rolled oats increased weekly until the tenth week, when each calf was getting no milk and 12 ounces of rolled oats and one pound of a grain mixture.

In our correspondent's case he could use a meal mixture consisting of one part each of barley meal, linseed-oil meal and wheat bran. The results showed that calves fed this way made as satisfactory gains as calves fed on skim milk. They should have good hay to eat.

If our correspondent has only a little skim milk, and has to take the calves at three days old, he will have trouble in



The Resourcefulness of the Homesteader. House and stable of Hugh Sullivan, Wittenburg, Alta. We publish it simply as an illustration of the resourcefulness of the homesteader, both of these stables having been erected single handed by the owner.

is recommended by the agricultural colleges of England:—

Flour	16 $\frac{2}{3}$ pounds,
Flax-seed meal	33 $\frac{1}{3}$ "
Linseed oilcake meal	50 "

The flour is useful in regulating the bowels, besides furnishing considerable nourishment. The meal mixture is stirred into hot water, forming a gruel. It is allowed to cool until lukewarm, and then fed. In 1901-2 experiments were conducted at the Pennsylvania Agricultural College, using the above formula as a basis. A very satisfactory meal of the following composition was made:—

Wheat flour	30 pounds.
Cocoanut meal	25 "
Nutrium (dried skim milk)	20 "
Linseed meal	10 "
Dried blood	2 "

The Nutrium was virtually skimmed milk dried and re-dissolved in water. The experiments were very successful, but the cost of the nutrium was a great objection. With this ration it was possible to rear unselected calves without the aid of milk after the first 14 to 18 days. The calves weighed 150 to 250 pounds each when four to five months old, and were produced at a food cost of \$8 to \$9 each.

Something a little more practical was

getting them started with any sort of practical ration. We would advise him to use all the milk he can at the start and substitute this with oatmeal and flax jelly. In place of using ordinary oatmeal, very finely ground oats, from which the hulls have been carefully sifted, would do. Make the flax jelly by boiling flax seed in water. Mix a cupful with the oatmeal gruel and as much meal as can be obtained, as nearly after the method outlined in the North Carolina trial as possible. If some milk can be fed for the first two weeks the calves could be given a good start, and the rest would be comparatively easy. Patent calf meal may be secured, but the average farmer will not care to go to this expense. It will be very difficult to raise the calves without any milk at all—practically impossible. The better plan would be to take fewer of the calves so as to give each calf more milk, especially at the beginning.

Seven thousand dollars in premiums are being offered at the Manitoba Winter Fair, to be held in Brandon in March.

Arthur Hall, Landis, Sask.—"I appreciate The Nor'-West Farmer very much and think it is the best farmer's paper published."

John Graham

*Importer and Breeder of Clydesdale, Percheron
and Hackney Horses and Shorthorn Cattle . .*

Three importations now in the barns, making a grand total of sixty head.

I have lately added a car load of Percherons, stallions and mares, the big drafty kind, and up to my usual standard in other breeds.

A choice Hackney mare, three years old, thoroughly broken to harness and quiet; also a Shire mare, big and good, three years old, are included in the offering.

Do you want a show stallion or mare, one that has won and can win again? Or if you want one that will breed you the toppers, come and see me and a show of sixty head that can be seen any day, rain or shine.

Will be pleased to show anyone the horses whether they come to buy or not.

In Shorthorns I have a herd of fifty head, and have a few young bulls and females of all ages for sale, including a few imported Augustas.

Carberry, Manitoba

Blue Ribbon Sale of Lakewood Percherons

International and State Fair Winners, at Public Auction
Tuesday and Wednesday, Feb. 14 and 15, 1911
At Stock Yards, Sioux City, Iowa

BESIDES the great offering of Show Animals, there will be a grand lot of young Stallions, by the great sires CALYPSO, MORSE and COLLARD, and fifty head of choice Mares and Fillies, by CALYPSO, SEDUCTEUR, OLBERT and other famous sires.

The Mares of breeding age are bred to the World Famous Calypso; the International winner, Inscrit, the great young imported Stallion Historian; and a few to the Show Horse, Vonmore, by Calypso.

The following great attractions have been listed:

IOLANTHE, twice champion at the International, and conceded to be the greatest mare of the breed. Sired by Calypso and bred to Inscrit.

ADELAIDE, an International winner; bred to Historian.

AMERICA, an imported ton show mare; bred to Calypso.

AUDREY, a two-year-old show filly, sired by Olbert, and out of a Calypso mare; bred to Historian.

The two great two-year-old show fillies, COLUMBIA and STELLA II., both by Calypso and bred to Inscrit.

BOBINE, an imported seven-year-old mare; a show yard winner, and bred to Calypso.

Two grand mares by the famous Seducteur, and bred to Calypso.

Two ton mares by Aride, the sire of the champion mare at the 1909 International; both bred to Calypso.

The great yearling show filly, NETTIE, and others of show yard merit.

The young show stallion, EM-PEROR, by Calypso, and others like him.

If you want winners for next year's shows, in either Stallions or Mares, don't fail to attend this great sale.

Catalogs on application.

H. G. McMILLAN & SONS, Props., Lakewood Farm

Auctioneers: Cols. Woods, Jones & McGuire, Rock Rapids, Iowa



Imported Percherons Green Meadow Stud Farm

Our present offering consists of four select stallions, all prize winners in France and personally selected from the best studs in that country. These horses have both size and quality. They are drafters selected for this Western country, and our prices are right. No commissions are paid. We buy from the breeder and sell direct to you. A guarantee goes with every horse. Write us for further particulars.

A. ANDRE DE MONTBEL & SONS
Ste. Rose du Lac, Man.

Live Stock on the Prairie.

According to provincial statistics, Saskatchewan takes the lead of the other two prairie provinces in live stock production by a considerable margin. Figures for 1909 show that that banner wheat province had 1,762,912 head of all kinds of live stock, Alberta 1,569,353, and Manitoba only 735,115. These figures were made up as follows:—Saskatchewan—Cattle, 828,150; sheep, 152,601; swine, 352,385; horses, 429,776. Alberta—Cattle, 1,044,683; sheep, 161,979; swine, 115,769; horses, 246,922. Manitoba—Cattle, 372,520; sheep, 17,922; swine, 155,541; horses, 189,132.

Land Type of Hogs in the West

Some of our western fair boards are giving more prominence in their prize lists this coming year to the lard type of hogs than has been the case at previous shows. The bacon type of hog has always predominated at both shows and in market pens, and will probably still continue to hold the premier position for some time to come. However, as has often been pointed out, western farmers are not raising pork for export but for a rapidly growing home market and it is a mistake to draw to the extreme bacon type that has been so much advocated in Ontario. The lard type of the corn belt will never be duplicated exactly, for available feeds, while being well adapted to make large and cheap gains, will not produce the degree of fatness in so short a time as will corn. The lard type in this country will, then, be less pronounced than it is in the south. So also the bacon type; it will be less extreme than in Eastern Canada.

Each year sees additional breeders of the lard hog entering the ranks in the Canadian West. Poland Chinas and Duroc Jerseys give promise of coming rapidly into favor in a great many places. The greatest demand for these types comes from Alberta where there is the greatest proportion of American settlers. Saskatchewan comes next and in Manitoba there appears to be the least demand for these above mentioned types. It is interesting to note that live stock reflects the nationality of people to a large extent. Americans are proportionately stronger in Alberta than in either Saskatchewan or Manitoba, which two latter provinces rank in the order named in that regard. The States settlers being used to the lard hogs in the south very naturally prefer them when they emigrate to this country. They also find that they do well here and but for the most unsatisfactory quarantine regulations in getting swine through the customs there would be more lard hogs imported from the U. S., especially into the western provinces.

Training a Collie.

A subscriber wants information from some one with experience in training collie dogs. He writes: "I have a fine dog that persists in getting at the heads of cattle. He is untrained but when younger would keep well to the heels. He has probably been kicked. He is now two and one-half years old. Can anything be done to get him into the right habit again?"

Something on training collies by those who have had experience would be very much appreciated by a great many Nor'-West Farmer readers.

The 35 co-operative bacon factories of Denmark slaughtered 1,359,000 pigs in 1909. There are 23 private factories in that country, whose output last year was 450,000 pigs.

The Union Stock Yards Horse Exchange, Chicago, has decided to appoint an official inspector to inspect and describe all horses to be sold at public auction. All visible defects will be announced and a plain and lucid statement made of same before bids are received.

British Farm Interests.

The Year's Review Concluded. From our Special Correspondent.

Glasgow, Scotland.

In my last article the cattle interests in Great Britain during the past year were reviewed. Horses, sheep and pigs now fall to be dealt with.

Among horses the most outstanding feature of the year undoubtedly was the export boom in Clydesdales. This subject was touched upon at some length in The Nor'-West Farmer during the summer. At that time it was predicted that the year's exports would likely constitute a record. Now that the complete year's transactions are to hand we find that not only is the prediction fulfilled but the number of exports will probably rank without precedent in the history of stock-breeding in Great Britain. This record has been achieved very largely with the aid of Canada. The demand from the Dominion was steady throughout the year, the number of animals shipped being well over a thousand. The total exports for the year to all quarters numbered about 1,500 head. During the preceding year, when the trade was also at high water mark, the number of animals exported was 1350.

Besides Canada, the United States, the Argentine, Australia, and New Zealand were among the importing countries during 1910. The value of the 1910 exports has been computed—reckoning the price of each animal at £50—which is a moderate sum—at £75,000 (about 370,000 dollars). It should be noted that in the distribution of this sum it is the smaller class of farmer who benefits, for it is that class who are the breeders of the bulk of the stock exported. If a farmer has a good breeding mare among his stock he may, by reason of the system of hiring stallions, be able to produce a likely animal for the export market. The hiring system places at his disposal the very best class of stallion.

No doubt in recognition of Canada's excellent custom, the Clydesdale Horse Society of Great Britain at a meeting in Glasgow, on Wednesday, 21st December, authorized a transfer for £600 invested in Dominion of Canada 3½ per cent. stock.

The most important home sale during the year was the Seaham Harbor dispersion, at which an average of £117 15s. was obtained for 77 head, the highest price being 1,000 guineas paid by Mr. Robert Brydon, formerly manager of the Seaham Harbor stud, for the well-known black stallion, "Silver Cup."

If the breeders of Shire horses have had a somewhat uneventful year they profess to be quite satisfied with the season's shows and sales. At the public sales the top price was 560 guineas, paid by Sir Walpole Greenwell at the London show for the two-year-old filly "Dunsmore Chessie." The average for 161 horses then sold was over £10.

Evidences of a serious decline in the Hackney market except for exceptionally good stock have formed the subject of a previous article. Attention to the breeding of hunters also might be the better of some revival. The dearth of horses suitable for army remounts, however, has at last been noticed by the Government and encouragement in the form of Development Act grants is promised.

While the breeding of the sheep has been, comparatively speaking, a negligible quantity in Canada, one gathers from your columns that increased interest is now being directed to sheep farming. Lincolns, which in the export sense are the most important of the English breeds, experienced a more limited demand during the past season. The exports numbered 1130, compared with 1560 in 1909 and 2550 in 1908. The sheep were more widely distributed, although Argentina, as formerly, was the chief customer. The well-known Lincoln breeder, Mr. Henry Dudding, secured an average of over £41 for his rams, the top price being 240 guineas. Among the Scottish breeds of sheep, Blackfaces topped the individual prices at £170.

Outbreaks of swine fever are dreaded worry to the pig breeder, and those who escaped these incidental in-



Here's a Guaranteed Poison to Kill Gophers Quick

GOPHERS cost you about 10 cents each and there are about 1000 of them in a 40-acre field. Here's how to save the big money that gophers—and other field pests—cost you. Get a box of Mickelson's Kill-Em-Quick. Follow the simple directions and look for results the very next day. Your money back if you are not satisfied.

Mickelson's Kill-Em-Quick is the only guaranteed Gopher Poison because it's the only one known to do the work, quickly and economically, with least attention. It has a very peculiar odor and taste that attracts gophers. This is the secret of its success.

Mickelson's Kill-Em-Quick Gopher Poison

is in a class by itself. Nothing even approaches it. Many farmers are trying in vain to rid their fields of profit-eating gophers with strychnine, because they don't know that Kill-Em-Quick is far

Better and More Economical Than Strychnine In Any Form

Here are the facts and figures. According to latest wholesale market reports, strychnine should sell for \$1.00 an ounce, which has a killing power of about 874 gophers. But strychnine needs lots of water to dissolve it and lots of grain to absorb it. So it is weak and ineffective. And it is excessively bitter. So gophers don't eat enough of it to kill them. Kill-Em-Quick is pleasing to the taste of gophers. And it is full strength on each grain. 75 cents worth of Kill-Em-Quick is sure death to 2,000 Gophers—guaranteed. Let me send you folders of facts for farmers. But ask your dealer for Kill-Em-Quick the next time you're in town.

Anton Mickelson, President

Mickelson Kill-Em-Quick Company
Dept. G Winnipeg, Manitoba



Prices in Large Quantities

Farmer Equity Societies, Township Boards and County Commissioners will find it to their advantage to buy Kill-Em-Quick at following standard restricted prices:

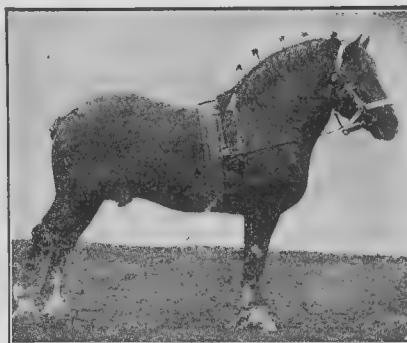
No. Pkgs.	75c Size	\$1.25 Size
12...	\$0.73 each	\$1.20 each
25...	.70	1.15
100...	.67	1.10
200...	.65	1.07
300...	.63	1.04
500...	.60	1.00

W. C. Kidd Listowel, Limited

Horse Importing Company

Listowel, Ontario, and
Wavy Lake Ranch, Strome
Alberta

President - W. C. KIDD, Listowel, Ont.
Western Agent G. T. KIDD, Strome, Alta.



CAESAR DE MACHELEN
First and Champion Belgian Stallion at
Edmonton Fair.

Importers and dealers in the highest class of imported PERCHERONS, BELGIANS, CLYDES SHIRES and Standard Bred Trotting Stallions of the most fashionable strains. Private sales solicited.

Terms to suit responsible parties. Our consignment is now ready for inspection. Write to either place for further particulars.

Craigie Mains Clydesdales

Thirty Head of Imported
Stallions for Sale

ON account of the death of Mr. Geo. Mutch, partner of the well known firm of A. & G. Mutch, Lumsden, Sask., and in order to wind up the business of the estate the Clydesdales now on hand at Craigie Mains are being offered at very reasonable prices. The firm has on hand now about 30 head mostly stallions, and the most of them sired by Baron Pride or of Baron's Pride breeding. There are 1 stallions, rising three or over, 12 rising two years and the rest foals.

Write for descriptive catalog which gives all particulars. Business is still being done under the firm name of

A. & G. MUTCH, Lumsden, Sask.

P.S.—These must be sold in order to settle up the business, when other importations will be made as usual.



BARON'S CEDRIC.

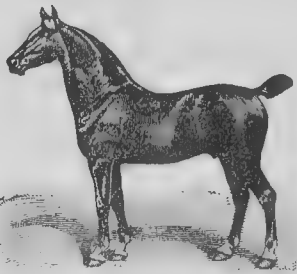
Horses for Sale

We have for sale 100 range horses, consisting of 18 yearlings, 20 twos, balance three year old and over; matured stuff; weighs from 900 to 1300 pounds and are of good quality.

Will sell any of these in car lots to suit purchaser. For further particulars write

Trimble & Garland, Lacombe, Alberta

Warranted to Give Satisfaction.

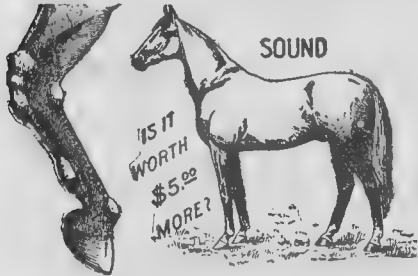
**Gombault's
Caustic Balsam****Has Imitators But No Competitors.**

A Safe, Speedy and Positive Cure for
Curb, Splint, Sweeny, Capped Hock,
Strained Tendons, Founder, Wind
Puffs, and all lameness from Spavin,
Ringbone and other bony tumors.
Cures all skin diseases or Parasites,
Thrush, Diphtheria. Removes all
Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism,
Sprains, Sore Throat, etc., it is invaluable.
Every bottle of Caustic Balsam sold is
warranted to give satisfaction. Price \$1.50
per bottle. Sold by druggists, or sent by ex-
press, charges paid, with full directions for
its use. Send for descriptive circulars,
testimonials, etc. Address

The Lawrence-Williams Co., Cleveland, O.

As they some- As "SAVE-THE-HORSE"
times are. can make them.



96 Monn Ave., Newark, N. J., Aug. 15, 1910.
Sometime ago I purchased a horse, believing him to be a real
good one. At the time I did not know that he had been fired
and blistered. He became very lame from a Bone Spavin, and
the prospect was not very favorable, owing to his advanced age.

However, having a bottle of "Save-The-Horse" on hand, of
which I had used very little in satisfactorily curing Puffs on
another horse, I ventured to think it would help the Spavin on
my new purchase. I was ashamed to drive the horse in the day-
time, he was so lame. I used about half the bottle. Suddenly
the horse forgot his lameness, and to this day he acts and
goes as sound as a colt. Now should you want a recommendation
you are at liberty to refer to me.

JOS. WM. BURTON.

\$5.00 a Bottle With Signed CONTRACT.

This is a binding CONTRACT and protects purchaser ab-
solutely in treating and curing any case of Bone Spavin,
Thoroughpin, Ringbone, (except low), Curb, Splint, Capped Hock,
Windpuff, Shoeheel, injured Tendons and all Lameness. No scar or
loss of hair. Horse works as usual. Send for copy of contract,
booklet on all lameness and letters from prominent business
men, bankers, farmers and horse owners the world over on
every kind of case. At all druggists and dealers, or express paid.

TROY CHEMICAL CO., 148 Van Horn St.
Toronto, Ont., and Binghamton, N.Y.**Sure Cure for Thrush****Worst Cases Yield to Douglas'
Egyptian Liniment**

Mr. J. L. Boyes, Secretary of the Napa-
nee Driving Park Association, has had a
good deal of experience with thrush on
horses' feet, and has tried various reme-
dies. He writes:

"I have cured bad cases of diseased feet
or thrush on horses with Egyptian Lin-
iment with two or three applications, after
calomel, salt, coal oil, etc., had completely
failed to do the work. I consider it a
waste of time to use anything but Egyptian
Liniment for thrush."

Such an emphatic statement from an
experienced horseman speaks volumes for
Douglas' Egyptian Liniment.

Another man who has found it most
effective is Mr. John Garrison, Morven,
Ont. He says:

"One of my horses had thrush so bad
that his feet became offensive, and the
neighbors advised me to shoot him. Before
doing so I decided to try Egyptian Lin-
iment, and in a short time my horse's feet
were as sound as ever." Twenty-five cents
at all druggists. Free sample on request.
Douglas & Co., Napanee, Ont.

LEASING OF LANDS The company is
prepared to lease for hay and graz-
ing purposes all reserved quarter or half section.
For particulars apply the Land Department,
Hudson's Bay Company, Winnipeg.

conveniences have little reason to com-
plain of last year's trade. Up to the
end of September fully 500 pigs of var-
ious breeds had been exported to Europe,
North and South America, China, South
Africa, Australia, etc.

Live Stock Exports.

Canadian live stock exports from the
port of Montreal for 1910 were as fol-
lows:—Cattle, 72,555; sheep, 553; horses,
497. In 1909 the exports were, in order
as above, 94,314, 1,616 and 84. In 1908—
99,830, 10,111 and 104. United States
cattle to the number of 179 were export-
ed through the port of Montreal in 1910,
7,227 in 1909 and 10,398 in 1908.

Historical Phases of Agriculture.

Some people treat themselves to a
superior smile when they hear any per-
son affirm that the "straight grain grow-
er" is wearing out his land far too
rapidly, yet so eminent an authority as
the Chief of the Bureau of Statistics of
the U. S. Department of Agriculture,
in his last report, indicates the historic
phases of agriculture as follows:

"First, the 'soil robber'; next the
diminishing production per acre on 'in-
exhaustible land,' which surprises the
farmer; next the agricultural scientist,
who points the way to a better agri-
culture and larger production per acre,
with poor responses from the farmers.
In the course of time, especially when
the next and perhaps the third genera-
tion takes the farm, important advances
are made, at first irregularly and most-
ly on farms of the leading class and
subsequently with increasing diffusion
and accelerated speed."

The test of any farmer's intelligence
lies largely in his ability to foresee the
drift of events, and adopt the better
methods that must eventually come, be-
fore he actually is forced to do so.

Growth of Chinese Milling.

American flour traders continue to lose
their hold on the Chinese market, chiefly
owing to the growing importance of the
Shanghai mills. Canton, Amoy, and
Foochow, who used to go to Hong Kong
for their supplies, have now become cus-
tomers of the Shanghai millers. There is,
however, still a demand for a better
article than local manufacturers can turn
out, as the climate is not favorable to
some of their processes, and, further, the
home-grown wheat does not come in in
good condition. Since the American boy-
cott three years ago, Australia has with-
drawn almost entirely from the Chinese
market, finding it more profitable to ex-
port her surplus to Europe. The United
States, however, prefer to sell at a loss
rather than let the Eastern market
escape them entirely, but it does not look
as if matters were improving for them,
as there is a growing tendency on the
part of consumers, apart from the Euro-
pean population, to prefer the cheaper
home-made article.

Due largely to the ravages of flax
wilt, the production of flax in the
United States has in a few years de-
creased fifty per cent.

The scarcity of pigs in the United
Kingdom is causing some comment at
the present time. Reports state that
the farmers are taking a keen interest
in the subject and that it is a frequent-
ly discussed topic at the farmers' club
meetings. In some instances lantern
lectures are given on swine husbandry.

We got this from Minnesota:—"The
man who 'makes a business of farming'
should have a business card; some print-
ed letter heads, with the name of his
farm home thereon; and should pay his
bills with checks on his bank. All these
little things not only 'make business,'
but help to dignify his calling, improve
his social standing and enhance his
credit."

Percherons and Holsteins

Registered stock of the highest breeding

Stallions and Mares For Sale

Cows, Heifers and Bull Calves offered at close prices. Imported mares
weighing from 1,650 to a ton. Some mares in foal to imported "Carnot"
grand champion at Chicago International in 1909. Some stallions and
mares sired by the famous "Calypso." A grand lot of young stallions
ready for service. Price right. Come and see—or write.

J. C. DREWRY**The Glen Ranch, Cowley, Alberta.**

Crows Nest Branch, Canadian Pacific Railway.

The Percheron Society of America

Has just increased its capital stock to \$100,000. 10,000 shares of \$10
each. 3,000 shareholders, November 28, 1910. 100 breeders have taken
memberships since December 1st. Ninety-five per cent of the Percheron
breeders of America record with the Percheron Society.

Information pertaining to Percherons furnished. Address

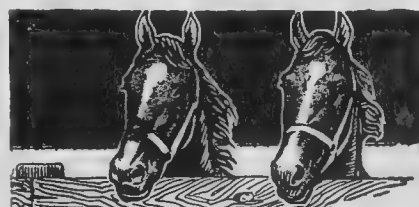
Wayne Dinsmore, Secy., Union Stock Yards, Chicago, Ill.**MANITOBA WINTER FAIR****FAT STOCK SHOW, POULTRY EXHIBITION
AND SEED GRAIN FAIR****BRANDON****March 11, 13, 14, 15, 16, 17, 1911****\$7000.00 IN PREMIUMS \$7000.00****HORSES, CATTLE, SHEEP, SWINE, POULTRY and GRAIN**

Annual Meeting of Man-
itoba Live Stock Associa-
tions.

Lectures and Demonstrations
by eminent experts. Judging
Competitions.

Single fair Railway rates. Entries close Feb. 28.

Prize list will be ready for distribution Jan. 10.

J. D. MCGREGOR,
Brandon, Pres.**ANDREW GRAHAM,**
Pomeroy, Vice-Pres.**W. I. SMALE,**
Brandon, Sec.**Double
the Value of
Your Live Stock**

That's what Pratt's Animal Regulator will
do. It is a guaranteed conditioner that will
make animals work better—look sleeker—
and keep in prime condition on less feed.
You should give

**Pratt's
Animal Regulator**

daily to all your horses, cows and hogs. A few weeks
will show tremendous improvement. It perfectly regu-
lates the stomach and bowels and is the greatest ani-
mal tonic ever put on the market. It is

**Guaranteed
or Money Back**

If Pratt's Animal Regulator does not produce the re-
sults we claim—go to your dealer and get your money
back.

Pratt's Animal Regulator is used through-
out the world. 25 lb. pail \$3.50. Smaller
packages and 100 lb. bags. Why not start
now and earn more with your live stock?

Our book on horses, cows and hogs is full of things
worth knowing. Send a postal for copy. It is free.

Pratt Food Co. of Canada, Ltd. Dept. 61, Toronto

Pratt's Worm Powder expels worms**Strayed**

From the premises of the undersigned in June,
1910, one Bay Gelding, rising six years old, with
four white legs, one wall eye, and branded 8
on left hip.
Any information of the above will be suitably
rewarded. William Dempsey, Petrel, Manitoba,

**SYNOPSIS OF CANADIAN NORTH-WEST****LAND REGULATIONS.**

Any person who is the sole head of a family or
any male over 18 years old, may homestead a
quarter-section of available Dominion land in
Manitoba, Saskatchewan or Alberta. The applicant
must appear in person at the Dominion Lands
Agency or Sub-Agency for the district. Entry by
proxy may be made at any agency, on certain con-
ditions, by father, mother, son, daughter, brother
or sister of intending homesteader.

Duties—Six months' residence upon and cultiva-
tion of the land in each of three years. A home-
steader may live within nine miles of his homestead
on a farm of at least 80 acres solely owned and
occupied by him or by his father, mother, son,
daughter, brother or sister.

In certain districts a homesteader in good stand-
ing may pre-empt a quarter-section alongside his
homestead. Price \$3.00 per acre. Duties—Must
reside six months in each of six years from date of
homestead entry (including the time required to
earn homestead patent) and cultivate fifty acres
extra.

A homesteader who has exhausted his homestead
right and cannot obtain a pre-emption may enter for
a purchased homestead in certain districts. Price
\$3.00 per acre. Duties—Must reside six months in
each of three years, cultivate fifty acres and erect
a house worth \$300.00.

W. W. CORY,

Deputy of the Minister of the Interior

N.B.—Unauthorized publication of this advertise-
ment will not be paid for.**FREE!****TREES FOR SHELTER**

DISTRIBUTED BY

DOMINION GOVERNMENT.

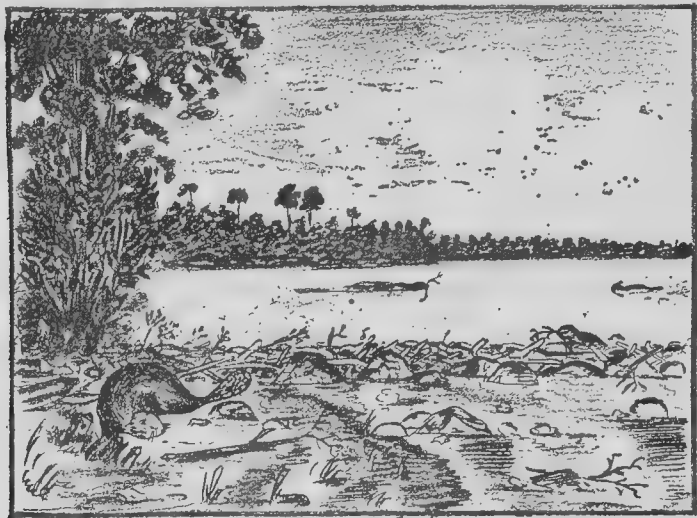
Applications for Trees for planting in 1912
will be received until **MARCH 1st, 1911.**

For further particulars apply to

NORMAN M. ROSS,

Chief, Tree Planting Division,

Indian Head Sask.



Beavers Building a Dam.

Delorme took his rifle, and one of his ponies, and accompanied Frank and Robert as far as the lake. There were plenty of traces of deer, but the deer themselves were not visible. Around the lake was a heavy growth of trees of a large size, and the large expanse of water was a delight to the eye. Delorme informed the men that winter fishing could be practiced as soon as the ice formed, and he would be pleased to have them return and join him in catching pike through holes in the ice.

As there seemed no prospect of shooting a deer, the men started on their homeward journey, and were advised to keep close to the creek till they reached the prairie.

The sun was low as the hunters rode side by side through the open spaces, which were becoming larger and more numerous as the edge of the timber belt was approached. They were silent and disappointed at not having had a shot all day. On coming to the top of an elevated spot the settlement could be distinctly seen a short distance ahead. The men dismounted, and were wondering on which side of a large grove they would ride, when a wolf made its appearance at the foot of the slope. Frank raised his rifle and fired. That instant three large elk, that had been lying in the scrub quite close to them, sprang into view. Either not knowing where the sound came from, or mistaking the ponies for other deer, the elk stood still with ears erect. Robert took good aim at the one with antlers and shot it dead. The others stood quite still. Again Robert fired and an elk fell. Hastily putting in a new cartridge, he raised his head, and found the third deer advancing towards him at great speed. Again the hunter fired and the third elk dropped. Robert, who had never before shot a deer in his life, supposed the last elk was attacking him, but the beast was evidently seeking to escape, not knowing that it was advancing on the danger.

Frank was mortified. He had not only missed the wolf, but in his haste to reload the empty shell became jammed in his breech-loader and prevented him from having a shot at the deer. Frank declared that his rifle was worthless, and that he must have one like Robert's before the snow fell.

The hunters examined the three large

deer, that were all lying dead within a stone throw of each other, and came to the conclusion that they had more venison than they knew what to do with. It was decided that Robert should remain with the deer, while Frank should ride to Hall's house about a mile distant and ask him for assistance. Before starting Frank tried his rifle again by shooting at a rabbit that hopped amongst the scrub, but no more deer made their appearance, nor did the cartridge jam again, as he half expected it would.

It did not take long to reach Hall's house, and that gentleman, who listened to the story with some incredulity, good naturedly hitched his oxen to a jumper, and guided by Frank soon reached the place where the deer were. The carcasses were loaded on the sleigh and taken to the shanty, where Hall gave assistance, and showed the young men the proper method of dressing the deer. Hall was well paid for his services, but he did not get any venison. A whole deer was presented to Mr. Bruce, and the young men had one each for themselves. Mr. Long was also given a generous roast of venison. To this day the story of that deer hunt is regarded as one of the interesting adventures in the lives of the pioneers.

CHAPTER XIV.

Winter Work.

The lakes and marshes were now frozen sufficiently to be safely crossed on the ice by men and teams. The first fall of snow had occurred, and covered the ground with a mantle of white. The grouse came in from the plains in greater numbers, and scattered on the fences and haystacks, and leafless trees, along the edge of the woods. The wagons were put away, and sleighs were constructed by bending small ash poles for runners. No iron was required in their manufacture.

The forest was visited daily by settlers from a wide stretch of prairie, who were drawing logs to be used in constructing larger buildings the following summer. Mr. Creighton and Mr. Long were also busy amongst the trees, having bought from Mr. Bruce the material necessary for their new houses, the selecting and cutting of the timber to be done by themselves. The two men worked together,



Muskrat Houses looked like Haycocks.

PURITY FLOUR

Buy it
once
and you
will choose
it
every time

32



More bread
and
Better bread

Try it!

The Famous Rayo

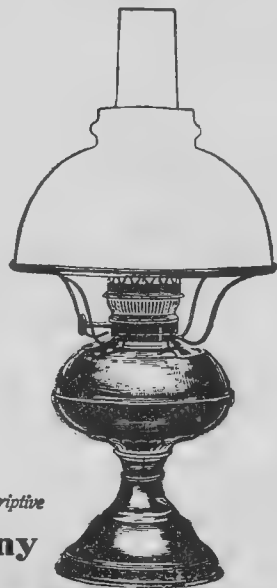
The Lamp with Diffused Light

should always be used where several people sit, because it does not strain the eyes of those sitting far from it.

The Rayo Lamp is constructed to give the maximum diffused white light. Every detail that increases its light-giving value has been included.

The Rayo is a low-priced lamp. You may pay \$5, \$10 or even \$20 for other lamps and get a more expensive container—but you cannot get a better light than the Rayo gives.

This season's Rayo has a new and strengthened burner. A strong, durable shade-holder keeps the shade on firm and true. Easy to keep polished, as it is made of solid brass, finished in nickel.



Once a Rayo User, Always One.

Dealers Everywhere. If not at yours, write for descriptive circular to the nearest agency of the

The Imperial Oil Company
Limited.



LET US
SHIP YOU
THIS,
ON TIME.

HATCH MORE CHICKS

CABINET incubators and brooders hatch more fertile eggs into strong, sturdy chicks and raise more chickens for market—this means extra profit, yes, and enough extra to pay for the outfit.

ONE HATCH FREE

To prove this, we give you the privilege of testing a CABINET incubator at our expense in your own home under the conditions in which it will have to work.

Every owner of a CABINET must be satisfied.

SEND YOUR NAME FOR OUR CATALOG

Which explains Cabinet incubators from start to finish. It contains letters from satisfied poultrymen; it gives a copy of our guarantee—a guarantee that is some good to you.—It will cost you nothing to know all about our free trial offer—send now.

BRETT BROS., MFG. CO., DUGALD, MAN.

and made one trip a day to the woods with their oxen, building a little fire in the snow amongst the trees, and taking their lunch, while the teams were given a bundle of hay that had been carried on one of the sleighs.

The day following the first fall of snow Robert Creighton and Sam Long engaged in a deer hunt and were quite successful. Most of the homes near the woods were well supplied with venison, as deer of several kinds were exceedingly plentiful, and were often met with by those visiting the forest for dry firewood. Every man carried a loaded gun, and it was seldom that a visit was made to the woods without firing several shots. There were partridges amongst the berry bushes along the creek, grouse on the dead trees, rabbits hopped amongst the poplars and willows. On the prairie wolves and hares frequently came within range, and the settlers were having a really interesting time while carrying forward their work.

Sometimes an excursion would be made into the unoccupied bush districts, which were inaccessible in summer owing to marsh and lakes, and new and untouched groves of timber would be discovered. It was easy travelling on the snow covered ice of the small lakes, which frequently joined each other in narrow grass covered marshes, and stretched away into the unknown wilderness of groves.

The lakes sometimes looked like a level hay-field covered with hay-cocks, so numerous and large were the muskrat houses built of reeds and grass. Mink were also very plentiful, and Ned Hall and Delorme trapped an immense number of these, besides wolves and foxes.

CHAPTER XV.

Fishing Through Holes in the Ice.

It was late in December when Frank Davis, Sam Long and Robert Creighton arranged to visit Delorme and if possible obtain a supply of fish at the lake. The morning was clear and cold, and as the sun appeared above the horizon pillars of smoke rose high in the still air, marking the spots where shanties were occupied. In the distance many columns of smoke seemed to rise out of the ground, the houses being invisible owing to their situations in some low place on the plains.

As Frank had an excellent sleigh and a well-fed team of horses at his command, the three young men, provided with guns of several kinds, ammunition, fishing tackle, matches, axes, buffalo robes, and oats for the horses, were not long in reaching the timber belt. All wore moccasins, fur coats, and loose woolen mitts with an extra pair of leather mitts over them.

Generally one person would drive and two carrying guns would walk, taking a shot at a hare, or chicken, or any other wild animal that they happened to approach. There was no sleigh mark ahead of them on the indistinct trail. Thousands of deer tracks were visible.

On reaching the river valley it was seen by the smoke from the lodge that Delorme was at home. He was pleased to see them, and readily fell in with the plans of the fishing party. There was room in the sleigh for four persons, and following a good road up the river on the ice, the large lake was soon reached. Delorme guided the party quite across the lake, which was about two miles wide, and, approaching near the shore, "this," said he, "is the mouth of Beaver Creek, and will be the best place to fish." While Frank took the horses to a sheltered place amongst the trees on the shore, and gave them a quantity of hay, the others proceeded to cut four holes in the ice some distance apart, and were surprised to find the frozen surface nearly eighteen inches thick. After removing the small particles of ice that floated on the water, the men returned to the woods near the horses, kindled a good fire, spread a buffalo robe on a fallen tree, which they moved to a convenient position, and proceeded to make hot tea from melted snow, and to open their parcels of lunch. All were quite comfortable around the fire without overcoats or mitts, and thoroughly enjoyed their dinner.

The first to finish lunch was Frank, who lost little time in dropping a baited hook and line into the hole nearest the camp-fire, and no time in uttering an exclamation of surprise as he deposited a large struggling pike in the snow before him. The immense size of the fish, and the quickness of the catch, surprised all but Delorme. Before Robert and Sam got their

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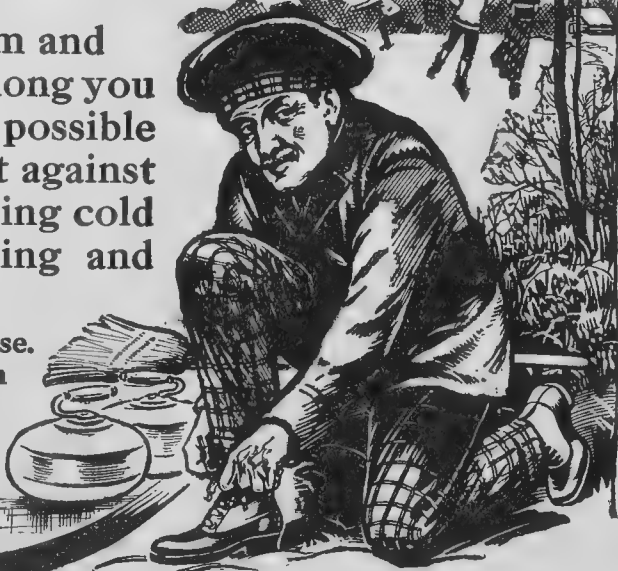


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Fishing through Holes in the Ice.

fishing tackle ready. Frank had landed, or rather iced, five splendid pike, but the first one was the largest and weighed nearly ten pounds. So enthusiastic did the fishermen become, and so rapidly were the pike taken, that very soon the ice all around the holes was covered with frozen fish. The four men caught about five hundred pike, large and small, and were as enthusiastic as ever when the sun disappeared from view and the woods cast a cold shadow along the shore.

Darkness came on so rapidly that the three young men decided to stop all night at Delorme's shanty; and a cosy place it was as fine fish was frying, and potatoes were boiling in the pot, and steam issuing from the mouth of the kettle. Frank had made his horses comfortable for the night, while Sam Long barricaded the fish and game against any prowling wolves. Robert assisted Delorme in preparing the supper, and gathered much information regarding the early history of the country.

After supper the men sat around the fire, while Delorme entertained his guests by reciting thrilling stories of the wild times when the buffalo hunters were abroad. "At one time," said Delorme, "many years ago, and not far from this river valley, I was looking for buffalo and had wandered some miles from the camp of my friends, and was surprised and surrounded by a band of hostile Sioux, who had evidently been watching me unobserved. My hands were immediately tied, my gun, saddle and bridle were appropriated, and my fleet horse was fastened with a piece of buffalo hide, and an Indian with a loaded gun was placed as guard, while the other Indians held council whether they would kill me or not. I understood a little of the Sioux language and soon found that it was determined to put me to death. The day was damp, and the thong of dressed buffalo skin that bound my hands had relaxed with the moisture, and I succeeded in stretching the string until I felt I could release my hands; so I resolved to attempt to escape, although there seemed little chance of succeeding. Getting loose my hands, I made a sudden bound on the back of my swift horse. Seizing the mane with one hand, and throwing myself forward, I struck the fiery animal on the eyes with my cap.

The startled beast, already excited, sprang back with all its weight on the line by which it was secured. Fortunately the fastening gave way and the horse fell backward. Just at this moment the Indian on guard fired. The fall of my horse caused the bullet to pass over, and the next moment the frantic, but free, horse, aware of the danger, was bounding madly over the prairie, followed by bullets fired by all the Indians of the band. I was without saddle, bridle, or hat, as my horse at full speed headed for the distant camp—all the Indians in swift pursuit. My horse was slightly wounded, but I escaped unhurt, but lost my gun, saddle and bridle."

It was now late. The candle had burned low. Delorme retired to his bed, in a corner of the shanty, and the three visitors spread their buffalo robes on the earthen floor, upon which had been placed some dry hay, and slept soundly.

On their way to Fairview early the next morning the black fox was observed trotting across a wide opening amongst the groves near the prairie. Although very far off, Robert took a shot at the showy animal, which seemed to pay no attention either to the rifle report or to the hunters.

"Well," said Robert, "I would like to get that fellow. If I had some traps I would try my luck."

"I will lend you some traps," said Frank, "there is a whole bunch of them not in use at the house."

At the edge of the woods the men stopped at Bruce's shanty, left some fish, and Robert got the loan of Cora's pony, which Mr. Bruce was pleased to turn over to him to take care of during the winter. The reports of the successful fishing expedition caused many other settlers to visit the lake, and fish became an important article of diet in the settlement.

CHAPTER XVI.

Securing the Prize.

Robert lost no time in making a light sleigh and harness for the pony, and obtaining several traps, he followed Delorme's instructions regarding the best methods of setting them. Several he placed in the vicinity of the woods, baiting the traps with pieces of prairie chicken, and covering them over lightly with dry



Chased by the Indians.



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distinguishes the Edison from all other instruments. This point is not a "point," but a "button" that travels without friction, producing the perfect, life-like tones for which the Edison is famous.

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ashes and snow. Two of the traps he set carelessly not far from his own home. The next morning he found that one of the traps near the woods was missing, and another had been sprung, and the pieces of meat carried off by a fox. Following the trail of the wolf that had carried off the trap, and the stick to which the chain

was attached, he found the animal entangled in the scrub, and quickly dispatched it with his rifle.

The days became rapidly colder. Twenty, thirty and forty below zero were quite common. Robert was beginning to despair of catching the black fox. He had caught red foxes and wolves, and shot

plenty of long-legged hares and prairie grouse. He had spent much time in reading Alfred Johnston's books, and much time with Ned Hall listening to stories of adventure.

One of the coldest mornings yet experienced Robert went out early to feed the oxen and pony, when he noticed

something furry and black jumping, and apparently struggling, not far from the stable. He looked for a moment to see if the animal was a dog, and then suddenly it occurred to him that the black fox was caught in the trap which he supposed least likely to catch anything. He grabbed the axe at the woodpile and ran over to

MEN! I WANT TO TALK TO YOU

I Want to Give My Reasons for the Popularity of My DR. McLAUGHLIN BELT



This is the electrical age. We are passing through a period which is prolific of invention upon the lines of electricity, and it is fitting that great improvements should be made in the adaptation of electricity for the cure of disease and many weaknesses from which men suffer. No branch of electrical research has offered so great inducements, such marvellous possibilities for the betterment of mankind, as the improvement of the methods of applying electricity to the human body for the restoration of its vitality. Experience, coupled with faithful and constant study, observation of the needs of the sick and weak, combined with the ardent ambition to produce the means which would most effectively battle with the elements which create distress of mind and body, have enabled me to produce a most wonderful method of applying electricity to the human system, and I am gratified with my success, not only having perfected an appliance which overcomes all objections to the use of electricity, and which absolutely cures, but by plain and honest statements of facts, by appealing to the judgement of suffering people, I have built up the largest business of the kind in the world. I take every case that comes to me individually, and arrange my Belt to suit the demands of that particular case.

You may say, as many others have said: "Doctor, your arguments sound good, but show me evidence of cures to back up your statements." That is my strongest argument. Every man or woman who comes into my office gets a practical illustration of my method of treatment. After seeing original letters from prominent people (letters which I am permitted to exhibit), their doubts are dispelled, they are convinced that the claims I have made are true. You can see these patients and secure from them verification of my statements. Hundreds of my best testimonials cannot be published, as the patients, though recommending my treatment privately, object to publicity.

Dear Sir:—It is with pleasure that I report the use of your Belt, which I received about thirty days ago. I feel 100 per cent. better already. My stomach is working all right now and the pains in the back have gone; also that tired feeling has vanished and I am getting strong. I am now working every day, while before I received your Belt, I was lying around hardly able to move. I think your Belt the most wonderful cure of the age. You have the liberty to use this as you see fit; also you can refer any sufferer to me, who is in doubt. Wishing you every success.—S. BURNS, Minnetonka, Man.

I have for years contended that old age was nothing but the freezing of the blood when there was no longer sufficient vital heat in the body to keep the blood warm and the organs active. I have said that years did not cause decay, and proved it by citing cases where men have been made vigorous under my rejuvenating treatment. I have men at seventy years of age who will tell you that the manner in which I apply electricity made the warm blood bound through their veins.

Dear Sir:—I am perfectly satisfied with the Belt you sent me. I followed your advice as far as possible and I have not been troubled with rheumatism since. I have felt better this fall than I have done for four before. It was always in the fall and spring I was troubled with it. Yours, etc. GEORGE MILNE, 69 McAdam Ave., Winnipeg, Man.

Dear Sir:—After using your Belt for pains in the back for one month, I find it has cured me. I think it is the cheapest investment I ever made, as I have paid out more money for doctor's medicines which did me no good than would have paid for the Belt. Thanking you for your valuable service and wishing you success.—FRANK HOWARD, Woodbend, Alta.

Dear Sir:—I cannot praise your Belt too much for what it has done for me. I am strong and active again. I kept it a secret from my friends, and they are always asking me how I came to be looking so well and strong, and I just show them my Belt, and say that is what did it.—A. MATTHEWS, No. 44 Osborne Street, Winnipeg, Man.

Decay in old men is similar to general debility in young men. Years have nothing to do with it. In each it is the failure of the stomach to generate sufficient energy to supply the demands made by the vital organs.

A great many wealthy men are suffering tortures and dosing themselves with drugs without relief, who never try a remedy like mine because they repose entire confidence in their family physicians, who believe that electricity is a remedy of the future, not of today, and so advise their patients.

The confidence I have in the wonderful curative powers of my Belt allows me to offer any man or woman who can give me reasonable security the use of the Belt at my risk, and they can

PAY WHEN CURED

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Do you want to feel big, husky and powerful, with your veins full of youthful fire, your eye clear, and your muscles strong and active? If you do, fill out this coupon and send it to me, and I will send you a book which will inspire you with the courage to help yourself. It is full of the things that make people feel like being strong and healthy, and tells of others like yourself who were just as weak once, but are now among nature's best specimens of strong and healthy human beings. Cut out the coupon and send it in today, and get this book free, sealed, by return mail. Call for free consultation.

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where the black creature was making a desperate effort to escape. A blow with the back of the axe put an end to the struggle, and taking his prize in his hand he entered the house to display its beauty and announce his good fortune. For the skin of the black fox Robert received \$450 when the buyer visited the Davis store in the spring, and this was the first large sum of money that he ever obtained.

(To be Continued in our Next Issue.)

Babyland.

How many miles to Babyland?
Anyone can tell;
Up one flight
To your right;
Please to ring the bell.

What can you see in Babyland?
Little folks in white,
Downy heads,
Cradle beds,
Faces pure and bright.

What do they do in Babyland?
Dream and wake and play,
Laugh and crow,
Shout and grow;
Jolly times have they.

What do they say in Babyland?
Why, the oddest things;
Might as well
Try to tell
What a birdie sings.

Who is Queen of Babyland?
Mother, kind and sweet;
And her love,
Born above,
Guides the little feet.

C. J. H.

Rock Me to Sleep, Mother.

Backward, turn backward, O time, in
your flight;
Make me a child again, just for tonight;
Mother, come back from that echoless
shore;
Take me again to your heart, as of
yore—
Kiss from my forehead the furrows of
care,
Smooth the few silver threads out of
my hair,
Over my slumbers your loving watch
keep—
Rock me to sleep, Mother—rock me to
sleep.

Backward, flow backward, O tide of the
years!
I am so weary of toil and of tears—
Toil without recompense, tears all in
vain—
Take them and give me my childhood
again!
I have grown weary of dust and decay—
Weary of flinging my soul-wealth
away—
Weary of sowing for others to reap—
Rock me to sleep Mother—rock me to
sleep.

Tired of the hollow, the base, the un-
true,
Mother, O Mother, my heart calls for
you!
Many a summer the grass has grown
green,
Blossomed and faded our faces be-
tween—
Yet with strong yearning and passion-
ate pain,
Long I tonight for your presence again:
Come from the silence, so long and so
deep—
Rock me to sleep, Mother—rock me to
sleep.

Over my heart in the days that are
flown,
No love like mother-love ever has
shone;
No other devotion abides and endures,
Faithful, unselfish, and patient like
yours;
None like a mother can charm away
pain
From the sick soul and the world-weary
brain:
Slumbers soft, calm, o'er my heavy lids
creep,
Rock me to sleep, Mother—rock me to
sleep.

Come, let your brown hair, just lighted
with gold,
Fall on your shoulders again as of old;
Let it drop over my forehead tonight,
Shading my faint eyes away from the
light!
For, with its sunny-edged shadows once
more,
Haply will through all the visions of
yore;
Lovingly, softly, its bright billows
sweep—
Rock me to sleep, Mother—rock me to
sleep.

Mother, dear Mother! the years have
been long
Since last I listened your lullaby song;
Sing, then, and unto my soul it shall
seem

Womanhood's years have been only a
dream;
Clasped to your heart in a loving em-
brace.
With your light lashes just sweeping my
face,
Never hereafter to wake or to weep—
Rock me to sleep, Mother—rock me to
sleep.
Elizabeth Akers Allen.

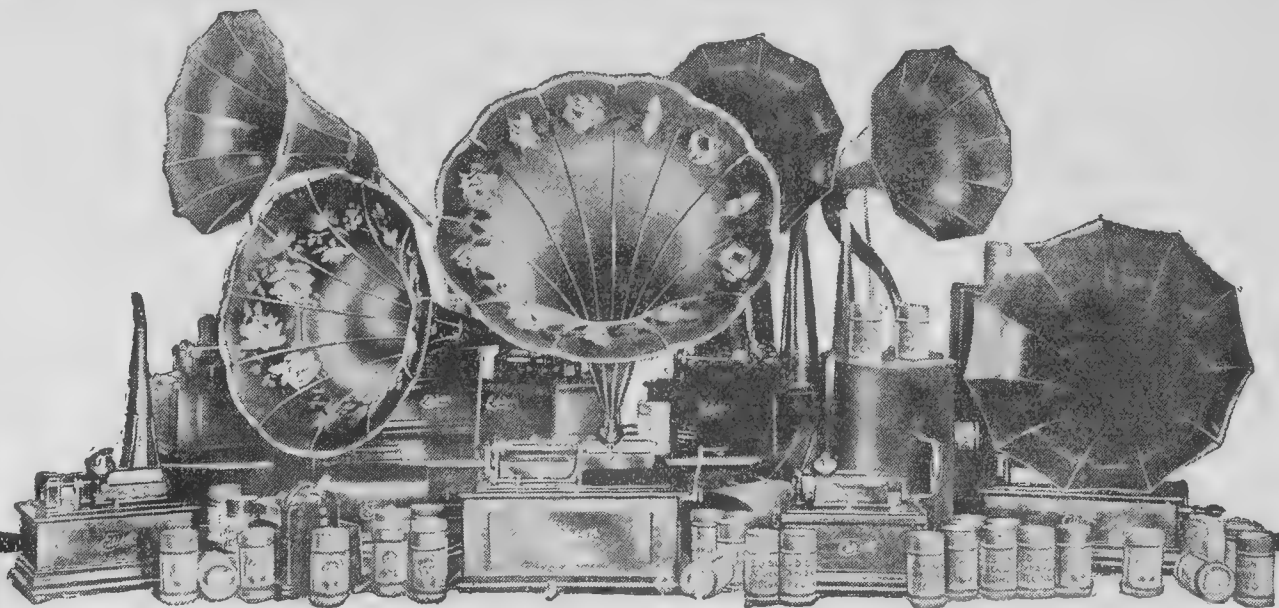
To Utilize Frozen Apples.

Apples that have been frozen should
be kept frozen until they are to be
cooked. Then they may be pared and
put on to stew at once. By treating in
this way they will be perfectly good,
and you will probably never know that
they have ever been touched by frost.

The reason why apples spoil after
being very badly frozen and then thaw-
ed, is that the freezing bursts the cells
of the apple and makes it especially
liable to be attacked by germs, and so
decay at once. It is the subsequent oper-
ation of the bacteria, and not the freez-
ing, that spoils the apple. By keeping
the fruit frozen until ready to cook,
the bacteria cannot get a chance to be-
gin their work.

Potatoes that have been frozen may
be treated in the same way. The writer
has eaten both apples and potatoes that
have been frozen as hard as stones and
kept frozen until needed for cooking,
and found them quite satisfactory.

Frozen apples, no matter how hard,
may be easily peeled by dipping in warm
water for a few seconds.



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wishes to buy such an outfit tell him that he can get the rock-bottom price, and, if he wishes, on payments as low as **\$2 a month**
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It will cost us a little in express charges to get the phonograph back from you—that is true—but we'll feel amply repaid for
that, knowing that we have made you a friend and a walking advertisement of the new style Edison Phonograph.

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Get our handsome Free Edison Catalog and list of over
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tations, etc., you want to hear on this ultra generous offer. Remember,
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the outfit at our expense when you are through with it. If you enjoy good music, and the
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your family and friends a treat such as they could not possibly get through any other
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and address on a postal will do but the coupon is handier. No letter necessary. Be
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I Will.

I will start anew this morning with a higher, fairer creed;
I will cease to stand complaining of my ruthless neighbour's greed;
I will cease to sit repining, while my duty's call is clear;
I will waste no moment whining, and my heart shall know no fear.

I will look sometimes about me for the things that merit praise;
I will search for hidden beauties that elude the grumbler's gaze;
I will try to find contentment in the paths that I must tread;
I will cease to have resentment when another moves ahead.

I will not be swayed by envy when my rival's strength is shown,
I will not deny his merit, but I'll try to prove my own;
I will try to see the beauty spread before me, rain or shine;
I will cease to preach your duty and be more concerned with mine.

Home Dressmaking.

Styles by May Manton.

[Ed. Note.—Any of the patterns described below may be had by sending ten cents to the Fashion Department of The Nor'-West Farmer. Order by number, and be sure to state size of pattern desired.]

Girl's Dress, 6879.—(With body and sleeves in one to be worn over any guimpe.)—The little dress that is made in one with the sleeves is one of the later developments of childish fashions.



6879 Girl's Dress with Body and Sleeves in One, 4, 6 and 8 years

This model is very novel being closed over the shoulders by means of buttons and button-holes. It is absolutely simple and easy to make, yet it is smart in the extreme. It is adapted to all childish materials, for thin and thick, both are made in this way. In the illustration the edges are scalloped but they can be finished with plain banding, if preferred.

The dress is made with front and back portions. There are panels inserted in the skirt at the underarm edges, and these panels are arranged under the front and back portions to give a trimming effect. The sleeves also are trimmed with shaped portions.

For the 6 year size will be required 3 yards of material 24 or 27 inches wide, 2½ yards 36 or 2 yards 44 inches.

The pattern No. 6879 is cut in sizes for girls of 4, 6 and 8 years of age.

Misses' Six Gored Skirt, 6880.—(With or without trimming).—The six gored skirt is one much liked this season. This one gives a box-plait effect at the back, but is plain at the sides and front.



6880 Misses' Six Gored Skirt, 14, 16 and 18 years.

In this case, the front gore is trimmed with contrasting material and is cut on the cross but such treatment is entirely optional, for the skirt is just a plain one. It can be treated in any way to suit the fancy.

The skirt is cut in six gores the edges of the back gore are turned under and lapped onto the side gores. To produce the effect illustrated the front gore is cut on the cross and is trimmed on indicated lines.

All we ask is for you to let us buy a 50-cent bottle of Psychine (pronounced Si-keen) from your druggist and give it to you free to try.

It has only been within recent years that we have come to really know about the white corpuscles of the blood or the phagocytes and what their function is.

That they are the policemen or scavengers of the body.

Devouring every disease germ that enters the body when they are strong enough or in sufficient numbers.

Or being devoured in turn by these disease germs when inferior in strength.

It has only been within the last few years that scientists have found out that certain herbs strengthen and increase these white corpuscles, or bodily scavengers.

* * *

And these herbs largely compose Psychine.

For thirty years Psychine has been strengthening and increasing the white corpuscles of the blood.

For thirty years Psychine has been building up run-down vitality, curing many of apparently hopeless diseases.

We have sold millions of bottles of Psychine in that time.

We have cured hundreds of thousands.

And we have received hundreds of thousands of unsolicited testimonials.

All due to this marvellous power of strengthening and increasing the white corpuscles of the blood.

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Here are the diseases of which Psychine has cured many thousand cases:

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Bronchitis	Weak Lungs
Hemorrhages	Weak Voice
Sore Throat	Spring Weakness
Anaemia	Early Decline
Female Weakness	Catarrhal Affections
Indigestion	Catarrh of Stomach
Poor Appetite	Night Sweats
Chills and Fevers	Obstinate Coughs
Sleeplessness and	Laryngitis and
Nervous Troubles	Dyspepsia
After-effects of Pleurisy, Pneumonia and La Grippe.	

Now, we don't ask you to take our word for the tremendously beneficial effect of Psychine. Fill out the coupon below, mail it to us and we'll give your druggist an order (for which we pay him the regular retail price) for a 50-cent bottle of Psychine to be given you free of cost.

We will undoubtedly buy and distribute in this manner hundreds of thou-

sands of these 50-cent bottles of Psychine.

And we do that to show our entire confidence in this wonderful preparation.

A confidence that has been based on our 30 years' experience with this splendid preparation, with a full knowledge of the hundreds of thousands of cures it has made.

COUPON No. 98

To the Dr. T. A. SLOCUM, Ltd.
193-195 Spadina Ave., Toronto.

I accept your offer to try a 50c. bottle of Psychine (pronounced Si-keen) at your expense. I have not had a 50c. bottle of Psychine under this plan. Kindly advise my druggist to deliver this bottle to me.

My Name.....

Town.....

Street and Number.....

My Druggist's Name.....

Street and Number.....

This coupon is not good for a 50c. bottle of Psychine if presented to the druggist—it must be sent us—we will then buy the 50c. bottle of Psychine from your druggist and direct him to deliver it to you. This offer may be withdrawn at any time without notice. Send coupon to-day.



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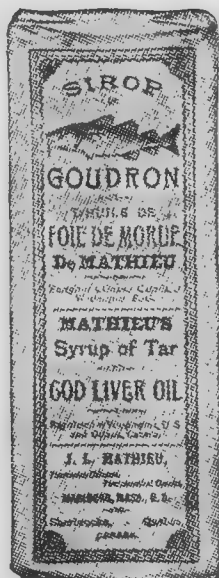
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Nervine Powders
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This famous remedy is made of two curative agents of proved efficacy in diseases of the throat and lungs.

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For the 16 year size will be required $4\frac{1}{2}$ yards of material 24 or 27 inches wide, $3\frac{3}{4}$ yards 36 or $2\frac{5}{8}$ yards 44 inches wide, with 1 yard of contrasting material for the trimming.

The pattern No. 6880 is cut in sizes for girls of 14, 16 and 18 years of age.

House Jacket, 6885.—(With or without collar, with scalloped or plain fronts, three-quarter or long sleeves.)—The simple breakfast jacket is the one that is apt to be most needed. This one has



6885 House Jacket,
34 to 44 bust.

one tuck over each shoulder that provides just becoming fullness. In the illustration the right front is cut in two big scallops, but it can be finished plain, as shown in the small view, if preferred, and the neck can be made a little higher with a turnedover collar. Sleeves that extend just below the elbows are found to be practical as they are fashionable, but this jacket can be made in

that way or with long sleeves, as preferred.

The jacket consists of fronts and back. The back is laid in a box plait at the center. The sleeves are made in one piece each, gathered into bands, and the belt confines the fullness of the jacket at the waist line.

For the medium size will be required $4\frac{1}{4}$ yards of material 24 or 27 inches wide, 3 yards 36 or $2\frac{1}{2}$ yards 44 inches wide, with $\frac{1}{2}$ yard of silk for bands.

The pattern No. 6885 is cut in sizes for a 34, 36, 38, 40, 42 and 44 inches bust measure.

Child's Dress, 6887.—Guimpe frocks are the prettiest possible for little girls and this one is novel and attractive. The yoke, or body portion, is cut in one with short sleeves, consequently it is



6887 Child's Dress to
be worn over any
Guimpe, 4, 6 and
8 years.

exceedingly simple and means little labor for the making, yet it is smart in the extreme. This one is finished with scalloped edges, but it can be left plain and trimmed in any way to suit the fancy. All the materials that are used for little girls' dresses will be found appropriate. This one is made of checked cotton voile, but such a model is appropriate for the pretty light-weight wools as well as for the washable materials.

The dress is made with body portion and skirt. The body portion is seamed over the shoulders and overlapped at front and back. The skirt is straight and plaited. The closing is made invisible at the back beneath the box plait.

For a girl 6 years of age will be required $3\frac{1}{2}$ yards of material 27 inches wide, $2\frac{1}{2}$ yards 36 or 2 yards 44 inches wide.

The pattern No. 6887 is cut in sizes for girls of 4, 6 and 8 years of age.

Common Drinking Cups at School.

Occasionally the jokesmiths entertain us to a good laugh at the expense of the man who is always worrying about the nightmare of microbes. This is all right sometimes, because the germ specialist is liable occasionally to overwork the imagination of the ordinary man to whom he begins to tell the facts

about the workings of disease germs. But our little laugh does not quite do away with the microbes themselves, and the careful judgment of well informed specialists is always worthy of consideration.

In this connection it is noteworthy that the Chicago Department of Health—a very much alive and up-to-date department—has put the common drinking cup at schools, in hotels and at other public places on the black list. This Department draws attention to the fact that some municipalities have already taken legal measures to abolish the common drinking cup, and commends such action. It says:—

"Especially should legislation of this kind be made to apply to public and parochial schools, railway and steamship lines, hotels and all public resorts. There is no longer any doubt but that disease is spread among school children by the use of the common cup. Disease-producing bacteria may always be found in the mouths of many well persons. It is known that those who are supposedly recovering from diphtheria or gripe will have the germs of these diseases in their mouths and throats for weeks. Because of these now well-known facts, the fight against the common drinking cup is on, and will not cease until this recognized agency in spreading the dangerous communicable diseases has been abolished."

The substitutes offered for the common drinking cup are, first, the bubbling or flowing drinking cup, and, second, individual cups. These latter are usually made of paper and intended to be thrown away or discarded after a few usings. It is not believed, however, that they are as good as the bubbling or flowing cup, although the latter, of course, would be available mostly where there is a pressure waterworks system, as in a city or town. The individual cups could be used anywhere.

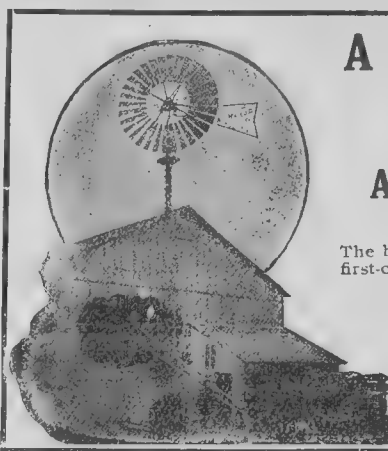
Consolidated Country Schools.

A Minnesota Opinion.

The idea of substituting one first-class graded school for existing groups of one-room district schools is one that finds wider and wider acceptance the more it is studied, and as practical experience verifies the correctness of the theory. The consolidated school is the school of today, in sections where men have been far-sighted enough to discern its advantages, and enterprising enough to overcome the difficulties to be faced. The chief of these difficulties—that of the distance of the school from the homes on the outskirts of the consolidated district—has been met by the expedient of employing wagons or automobiles to call for children living in such homes, and to return them at the close of school. The cost of this service has proved insignificant in comparison with the benefits gained.

The consolidated school wipes out at once every assumed advantage of the city over the country school, and thereby removes one of the strongest motives which have prompted the migration of families from the country to the town—the bettering of the educational advantages of the children. Indeed, it does more than this; for in and around the consolidated school may be grouped facilities for vocational training, particularly in pursuits allied to the farm, for which it is difficult to find sufficient room in the cities. Add to this the superior healthfulness, the purer democracy, and the more wholesome social atmosphere which surrounds the country as compared with the city school, and the greater attractiveness of the former is manifest. The probability is that ere long, when the consolidated schools shall have "come to their own" in development, city people will covet their advantages for their children, as country folks have heretofore coveted those of city schools. Here is another influence added to those which are to reverse the human current which has been setting from country to city.

Tough meats should be carefully cooked in low heat long applied, rather than in great heat for a short time.



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A Pumping Mill and Tower
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A Man's Book



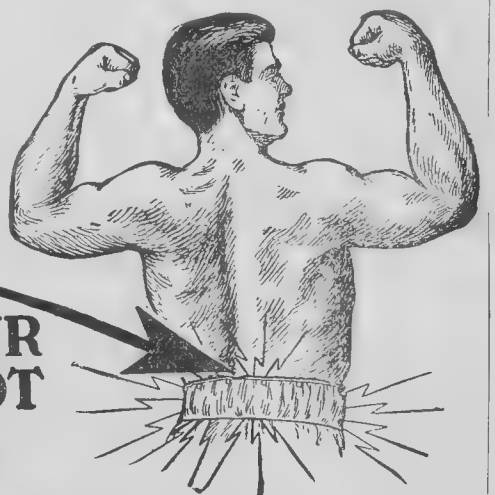
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From a Woman's Standpoint.

A Department Edited by Margaret Freeston.

QUESTIONINGS.

"Nobody knows the work it takes,
To keep the house together;
Nobody knows of the steps it takes,
Nobody knows—but mother."

A group of women were talking together a few evenings ago. The company consisted of an elderly lady, who had brought up a family, and three young married ladies with small families and small means. "Why is it that we are all so busy that we cannot give proper time to our children?" said the mother of three, the youngest one year, the eldest seven—a woman who did all her own work. "Why," she continued, "I am always busy sweeping and cooking and mending, and yet I haven't time to do many of the things that count for most. I know that my opportunity with my children is now, but what am I to do?" She had purposely directed our conversation into this channel, because she was really concerned about this matter. "I have thought and thought about it," she said, "and I don't see how I can get more time to know and train my family." Aside from the physical, there were many of her children's needs which she felt she could meet and fill. There was much she wanted to teach them, but how to get the time was what concerned her. She had taught school for many years, and knew a good deal about children.

Her very earnestness stirred the company, and they talked the matter over. Were there no further ways in which to save time and strength? Each out of her own experience of home work tried to bring some light to bear on the discussion.

"If I had it all to go through over again," said the elderly lady, "I would do very differently." How often mothers say that! When they reach the end of the family rearing road they appear, in looking back, to see the relative values of things better; to realize how much some things mean to their families, how insignificant are others. "For instance," the speaker continued, "in those early days, when I had \$10.00 to spend I would buy new curtains, or something of that kind. But if I had it to do now, I would put some money first into a labor-saving device to save my back or save my time—a fireless cooker, a carpet sweeper, which can be run over rugs or mats or bare floors, and would keep things tidy with very little effort—or a mangle to minimize the ironing."

"Well," said another, "I think the great thing is to furnish our houses a little more sensibly. Why should I have useless things about my house, merely for show, to take up my time moving and dusting? I can get far more pleasure out of my children than I can out of my house, and the time may come when the house is there but not the little ones."

The question of floors greatly troubled another, who said that saving hard sweeping and saving hard scrubbing was a woman's first duty. She believed in covering as many of the floors as possible with linoleum. This can be swept with a long soft broom, no hard work about it, and kept in the best condition with a minimum expenditure of energy. Covering the kitchen table with a piece of zinc was another recommendation. Hot vessels can be laid on it without injury to it, and it is very readily cleaned. Nails and hooks in convenient places, and near to where the articles are going to be used; nothing resting on the floor and requiring to be moved for cleaning which can be raised; castors for as many things as possible which have to stand on the floor. The wood box on castors, the cabinet table on castors, and a small stand on castors for the flour or sugar barrel. And so on the suggestions went. A good sized packing case in the kitchen, covered with a piece of dark material, or painted, was advocated, to hold a number of such things as are often needed for children—a clean pinafore or dress, a tidy pair of shoes, or a hair brush.

I don't know whether the puzzled

mother who started the conversation got very much help that evening, but others of the company did. The best thing they got out of the discussion was not a definite suggestion about some one little improvement in their home arrangement, which would only mean a very little saving, but the best thing that night was the principle emphasized—the labor-saving principle. Not one had set out to preach it, but unconsciously all had done so. Labor-saving machinery, labor-saving devices, labor-saving methods, labor-saving furnishing, labor-saving clothing—taking thought for labor-saving. Is this not what modern thought is teaching us to do, especially to make use of good labor-saving machinery?

When all is said and done a conscientious mother with three little children and all her own work to do has a great big task on her hands. I am sure she has too much to do to permit of all being done that is needed, or that she would like to do for her dear ones, and the mother who started the talk in our circle the other evening felt this. But what she wanted to be sure of was that she was not doing unnecessary things. A lady speaker at a meeting in a Manitoba town last autumn said, "If the women of the West could be transported to the Isle of Ease for a time, when they came back to see how the male housekeepers had been getting along in their absence, they would find, among other changes, fewer white clothes on the children in the summer, all unnecessary articles in the house removed, and every labor-saving appliance for the home installed."

Every woman has to solve her own problems. What she can get from others is light on them, a new viewpoint possibly, and new ideas. But in the end, they are again her problems.

"Had I my yesterdays again,
What different things my eyes might see;
For though today those sights are plain,
I saw them not beside my knee."

Their budded plannings and their dreams
Within each little breast they locked;
The hand was busy sewing seams,
That should at each heart's door have knocked.

Though to me kind, in word and deed,
Could I those yesterdays recall,
Each aspiration and each need
Of theirs were mine the first of all."

WHAT CHRISTMAS BROUGHT.

My presents this Christmas included some pretty hand-made articles, useful, too, which I thought you might be interested to hear about. I will try to tell what materials would be needed for the making of similar articles.

First, there was an album for photographs. An ordinary scrap book was used, and for the outside of it a cover of dark green fancy material was made, with the word "photos" written across the front and outlined in silk. The fancy cover was made the exact depth of the album, but was cut wider, to form little pockets, into which the edges of the front and back covers of the album were slipped, keeping the fancy cover in position. The book was made by a member of the family, who had access to all my photos, and she had pasted them into the album, using photo paste, after tearing the mounts away from the photos. It is always a little difficult to know just how to preserve photos clean, and yet have them at hand to be looked over. In this book, different photos of one person were all put on the same page, making it interesting to see the changes the years brought in the individual and the fashions. For an album about 13 inches by 10 inches in size, three quarters of a yard of half-yard wide material would be necessary, and a pot of photo paste costing 25c. This paste does much better than mucilage.

Another pretty present was a small table cover about 30 inches square, with

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The wise housewife knows the importance of always keeping a good supply of Windsor Dairy Salt on hand.

She knows that Windsor Salt makes the best

butter—and she is not satisfied to make any other.

Windsor Dairy Salt is both a money-maker and a money-saver.

It makes money for farmers and dairymen because it makes butter that brings the best prices.

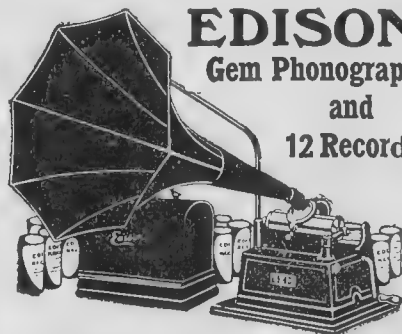
It saves money for them because, being absolutely pure, it requires less to properly salt the butter.

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Easy payments from \$2.50 monthly. No C.O.D. Return if not as represented, and money refunded. Satisfaction guaranteed. A straight business offer; no mysterious philanthropic ad. We have second-hand machines at bargain prices. Old machines taken in trade; 40 styles of talking machines; 30,000 records; 40 styles of pianos.

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This Columbia in beautiful modern cabinet with largest sound box, latest aluminum scientific tone arm and revolving horn, exactly as shown. No crane, stand or rubber tubing required. So simple, no attachments. Plays all makes and sizes of disc records. The disc style reigns supreme.

\$35 Only freight paid, including 16 large selections (8 double discs) of your own choice.
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Numerous beautiful, fashionable designs, printed in absolutely fast colors on the finest and best woven cloths.

Show this advertisement to your dealer when you order, and don't accept substitutes. If not in your dealer's stock write us his name and address. We'll help him supply you.

The Eddystone Mfg. Co., Philadelphia
Established by Wm. Simpson, Sr.

an inch and a half wide insertion let in all the way round at about four inches from the edge. The edge of the cloth was finished with wide lace the same pattern as the insertion. There are so many dainty designs in cretonne to be had nowadays.

A handy darning came along, too, fashioned out of two pieces of pasteboard, covered with a flowered ribbon. These were of such a size that two spools of darning cotton could be placed side by side between them, one piece of pasteboard forming the top of the little stand, the other piece the base. On the under side of the bottom board a few leaves of flannel were attached to form a needle book, and a third piece of ribbon covered cardboard protected the needle book. A ribbon attached to the lower piece of cardboard is threaded through the spool of darning cotton, and then attached to the top piece, and finished outside with a nice bow. If you wanted to enlarge on the present a little, a pair of scissors, a thimble and a darning egg would complete the outfit.

The piece bags I am about to describe make no pretence to anything but utility, but as they fulfill that mission very successfully, their existence is justified. They need about three yards of dark, unpatterned material. Cut this into four equal lengths, and make four bags, leaving no opening at the top, but a slit in the front where the pieces can be put in. In red cotton, or in any contrasting color, outline the word which describes the use for which the bag is intended—one for silk pieces, one for muslin, one for cotton and one for woolen. Tack the bags inside a cupboard door. I am anticipating that "finding something in the piece bag" will not now be so wearisome a task.

FORTY MEMBERS TO START WITH.

The secretary of the Birtle Household Science Association, Mrs. David Watt, has kindly sent me the following account of their first meeting since organization. Their next meeting, after one as good as this evidently was, will doubtless see a large number of new members added to the roll; for there is no better way known of advertising the work of such a club than by good, helpful, interesting meetings. Already they have a most encouraging membership. Mrs. Watt writes:

"Our first meeting took place on Saturday afternoon, December 3rd. On the evening the Household Science Association was organized here, the officers elected decided to meet November 19 and arrange for a public meeting; which they did, and discussed time, subjects, etc. We decided to call our association the Birtle branch of the Household Science Association. We also arranged to add two more ladies to the executive committee; to levy a fee of fifty cents; to hold our first meeting on Saturday afternoon, December 3, and to meet the first Saturday of every month. The programme for our first meeting was as follows. A paper by Mrs. Wm. Patterson on Christmas dinner and table decorations; a second paper by Mrs. Wheeler on Christmas amusements for the children; a third paper by Miss G. Walton on Christmas presents suitable for everyone, and how to make them. A notice was put in the paper of the meeting. We were greatly pleased on December 3 to have between fifty and sixty ladies present in spite of the heavy snow storm and severe cold weather.

"Our meeting opened with an address from the president, Mrs. J. H. Malcolm, who gave a very interesting outline of the work the association thought of taking up, and explaining to those who were not present to hear Miss Juniper the object of the association. When the constitution had been read, Mrs. Wm. Patterson's paper was given. After touching briefly on the different dinners for different countries, she gave the menu for a Christmas dinner—very dainty, yet simple enough for everyone, and advised where there were children to have something less rich than the customary plum pudding, suggesting lemon sherbet, and giving the recipe for the same. Then followed a very pretty idea for table decoration; the centre-piece to be a miniature forest, composed of small twigs of evergreen stuck closely together in a large platter filled with snow, or

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You won't feel exhausted when you take
EPPS'S COCOA FOR BREAKFAST!
It will sustain you as nothing else will—there is strength in every particle of it. As a supper beverage it is perfect.

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Blame yourself if you get cold feet this winter. You don't need to have them. Lumbersoles keep feet warm at 50 degrees below zero. We guarantee it. So get a pair and make sure of being comfortable. If your feet are warm your whole body is. Send for a pair of Lumbersoles by the next mail. Now don't put it off. Wear them this winter and your feet can defy any cold. Sizes 3-12 (for all ages) \$1.75. Children's sizes 6-2 (fit ages 3-10) \$1.35. Post or Express paid by us. Send for catalogue of British Footwear and Woollen Goods. Sent by return. Money refunded if boots not satisfactory.

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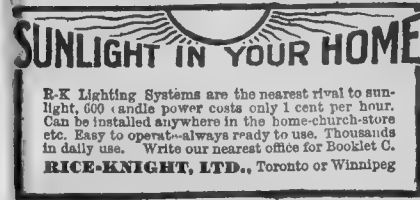
This makes HAMBURG FELTS unusually strong and durable, yet soft and pliable—makes the finest Felt Footwear on the market.

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THE NEW FLAVOR
MAPLEINE

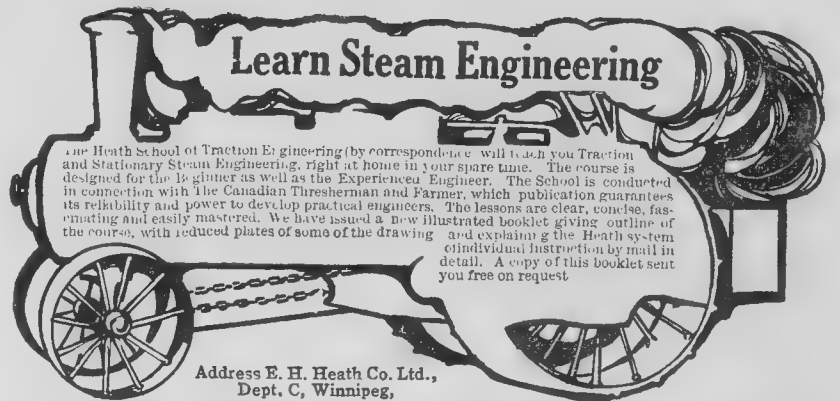
A flavor used the same as lemon or vanilla. By dissolving granulated sugar in water and adding Mapleine, a delicious syrup is made and a syrup better than maple. Mapleine is sold by grocers. If not send 50c. for 2 oz. bottle and recipe book. Crescent Mfg. Co., Seattle, Wn.



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These two papers, the Weekly Free Press and Prairie Farmer, (Winnipeg,) the leading Weekly newspaper in Western Canada, and the Nor'-West Farmer, the leading Farmers' illustrated magazine, considered singly, rank high, but when combined they make an irresistibly attractive club, and when quoted together at the ridiculously low figure of \$1.50 for both, it does not require a man of very great parts to see that this is the newspaper-bargain of the year. Offer good only for a limited time. Subscribe now.

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Strong, rigid frame—roller bearings—tight cover.

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Make a plain syrup by mixing two cups of granulated sugar and one cup of warm water and stir for two minutes. Put 2 1/2 ounces of pure Pinex (50 cents worth) in a 16 ounce bottle, and fill it up with the sugar syrup. This gives you a family supply of the best cough syrup at a saving of \$2. It never spoils. Take a teaspoonful every two or three hours.

The effectiveness of this simple remedy is surprising. It seems to take hold instantly, and will usually stop the most obstinate cough in 24 hours. It tones up the most jaded appetite and is just laxative enough to be helpful in a cough, and has a pleasant taste. Also excellent for bronchial trouble, throat tickle, sore lungs and asthma, and an unequalled remedy for whooping cough.

This recipe for making cough remedy with Pinex and Sugar Syrup (or strained honey) is a prime favorite in thousands of homes in the United States and Canada. The plan has been imitated, though never successfully. If you try it use only genuine Pinex, which is the most valuable concentrated compound of Norway white pine extract, and is rich in guaiaol and all the natural healing pine elements. Other preparations will not work in this recipe.

A guarantee of absolute satisfaction or money promptly refunded, goes with this recipe. Your druggist has Pinex or will get it for you. If not, send to The Pinex Co., Toronto, Ont.

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Reliable Parties to do Machine Knitting for us at home. \$7 to \$10 per week easily earned. Wool, etc., furnished free. Distance no hindrance. For full particulars Address

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something to look like snow; the trees to be trimmed with popcorn and berries, and tiny sleighs to be placed among the trees, and the same to be used for place cards. She brought one as a pattern, prettily painted, and a sprig of evergreen tied on with red baby ribbon. Mrs. Wheeler's paper was both interesting and full of good ideas. She thought everyone ought to try and have a Christmas tree, as that was the greatest amusement the children could have, and the proper time for it to be shown was the latter part of the afternoon. She also outlined enjoyable games in which old and young could join.

Miss Walton's talk and exhibition of fancy work was most interesting, for at this time of year everyone is interested in Christmas presents; and Miss Walton's collection was certainly lovely. A table full of small and simple to large and elaborate presents for children, men and women, and so many easily made and quite cheap. Miss Walton explained how they were made, the cost, etc., and everyone came forward to examine them and get some new ideas. At the close of the meeting we had forty members, and several others promised to join at our next meeting."

BOYS' AND GIRLS' AGRICULTURAL CLUBS.

Many who have come to us from the land to the south are conversant with what the boys' and girls' agricultural clubs of that country are doing, but others may not be so familiar with their work. The first state-wide movement of the kind began about 1898, in New York, and the U.S. Department of Agriculture a few months ago had information of 395 counties in 28 states in which such clubs had been organized. The membership then was 144,000.

They are for children in the elementary schools, and in many cases were organized by rural teachers and county superintendents of schools, with the intention of interesting the pupils more and more in country life. The clubs are officered by the children, but generally under the oversight of the teacher. Their activities in the main, take the form of contests; among the boys, chiefly corn growing, or other crops, but judging animals and grains, and some field work has also been introduced into the contests. The girls compete over bread-making and sewing, and sometimes test their skill against the boys in gardening.

The Department of Agriculture recognizes five main results from this co-operative and competitive work among the children:

The members have been led to observe more closely matters which concern agriculture; the differences between products they have grown, and in the insects, weeds, etc., which affect their work.

They have learned the value of organized effort, and the social instinct has been developed.

The parents have caught some of the enthusiasm of the boys and girls.

The influence of the clubs has stimulated the ordinary work of rural schools and teachers.

The natural love of competition between boys and girls has been successfully turned to account in still another direction, for the furthering of their own education.

CONVENTION FOR WOMEN.

The programme for the Farmers' Wives' and Household Science Associations' Convention at the Manitoba Agricultural College, Winnipeg, February 14th and 15th, will include:—

Demonstration: "The development of a Hat," Miss Kennedy of the Household Science staff.

Report of Progress by delegates from local household science associations.

Union evening meeting of the agricultural societies' delegates, and household science association delegates.

Demonstration in Cookery, by Miss Juniper, Professor of Household Science. Address: "Teaching Life Truths to Children," Mrs. F. A. Collins, of Miami, Man.

Discussion on "How to promote the interests of the Women's Associations in Manitoba."

Address: "The Importance of Social Life in Country Homes," Mrs. Nellie McClung, Manitou.

Address: "Hygiene in the Home," Dr. Mary Crawford, Winnipeg.

Illustrated address: "Germ Life in its Relation to the Home and the Community," Professor C. H. Lee, of the Agricultural College staff.

HORTICULTURAL MEETING.

Dr. H. M. Speechly, Pilot Mound, president of the Horticultural and Forestry Association, is very much interested in the subject of horticulture for women. He believes that its value can hardly be over estimated for those engaged with housework for much of the day. It has, therefore, been planned that the opening session of the horticultural convention, Tuesday afternoon, February 16th, shall be specially for women. Miss Lilian Benyon, of the Manitoba Free Press, will be in the chair. It is expected that addresses or papers will be given by Miss Annie Ferguson Playfair, of Hartney, on "Tree Planting, from a Woman's Standpoint;" Miss Ruth Lloyd, of Morden, who has started a nursery and garden on her farm; Mrs. Vialoux, Sturgeon Creek, on "The Place of the Garden in the Life of the Busy Mother;" Miss Juniper, on "The Influence of Flowers in the Home;" Miss E. Cora Hind, of the Manitoba Free Press, on "Memories of an Old Time Garden." Mrs. Vialoux will be prepared to answer questions, and glad to do so. In addition to the above, Dr. Speechly will show some lantern slides, "Hardy Perennials," and at the close of the meeting afternoon tea will be served by Miss Juniper's Domestic Science class.

Letters for this department, and letters on any subject which interests women are always acceptable, should be addressed to Margaret Freeston, care Nor'-West Farmer, Winnipeg.

Adopting A Baby.

J. J. Kelso, Superintendent of Neglected Children for the Province of Ontario, has this to say:—One of the privileges of child-saving work is to be the medium in placing a tiny, helpless baby in the arms of a large-hearted woman who has been denied the blessing of a real-own baby. These little bits of humanity have a way of twining themselves around the heartstrings that is simply irresistible, and once taken into a home they are rarely ever returned. These are the genuine adoptions that stand the test of petty annoyances and disappointments. Not only do they grow like their foster-parents in character and disposition, but, strange to say, even in facial expression. No one can make a mistake in adopting a baby at six months, and they will be amply repaid for their extra work in the long run.

"Oh, when at dawn the children wake
And patter up and down the stairs,
The flowers and leaves a glory take,
The rosy light a splendor shares,
That never more these eyes would see,
If my sweet ones were gone from me.

"And when at eve they watch and wait
To fold me in their arms so white,
My burdens, whether small or great,
Are charmed away by calm delight,
And shutting out the world, I live
The purest moments of earth can give."

Do you know what kind of literature your children are reading? Give them a well selected supply.

There is in every child a spark of the divine that can be kindled into a glowing flame of noble aspiration and heroic activity.

According to statistics compiled in the U. S. office of experiment stations, meat furnishes about 16 per cent. of the total food consumed in the ordinary family of this continent, about 30 per cent. of the protein desirable in the average diet, and 60 per cent. of the energy producing fats.

Contracted a Heavy Cold.

It Became a Lung Splitting Cough.

Mr. J. H. Richards, 1852 Second Ave. East, Vancouver, B.C., writes: "Allow me to write a few lines in praise of your Dr. Wood's Norway Pine Syrup. Last fall I contracted a heavy cold which left me with a hacking cough and every time I would get a little more cold this hacking cough would become a lung splitting one. It kept on getting worse and I kept on spending money buying different cough remedies until a friend asked me if I had ever tried Dr. Wood's Norway Pine Syrup. I told him I was willing to try anything I thought would cure, and on the same day bought two bottles. Before half the first one was used my cough began to get much easier, and by the time I had used a bottle and a half my cough was gone. I am keeping the other half bottle in case it should come again, but I am sure I have a positive cure. Let me recommend Dr. Wood's Norway Pine Syrup to all who suffer from a cough or throat irritation of any kind."

So great has been the success of this wonderful remedy, it is only natural that numerous persons have tried to imitate it

Don't be imposed upon by taking anything but "Dr. Wood's."

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Quite the latest and newest designed camera on the market. Every one guaranteed to work. This is a new and wonderful invention, so simple that a child can operate it and develop pictures by himself all in two minutes. Camera practically works by itself. We give it FREE together with complete outfit for selling only \$2.50 worth of our beautiful LITH-ART post cards at three for 5c. These comprise VIEWS OF WESTERN CANADA, LOVE SCENES, BEST WISHES, COMICS, BIRTHDAYS, VALENTINES, EASTER, etc. Send your order to-day for post-cards, sell them, return money, and we will send camera to you, postpaid, same day.

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This elegant watch, stem wind and set, fancy engraved SOLID SILVER cases, FULLY GUARANTEED, will be sent you FREE if you sell only \$3.00 worth of our beautifully colored and embossed post cards at 6 for 10c. These are the very latest designs in Views, Floral, Holiday, Comics, &c. The swiftest sellers. Just show them and take in the money. Send your name and address, plainly written, and we will forward you a package of cards and our big premium list. Don't delay, for we give this extra present for promptness.

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"Black Knight" is a joy to every woman who takes pride in her home.

It enables her to have the stoves always clean, freshly polished and brilliantly black.

"Black Knight" is ready to use—easily applied—and a few rubs brings a mirror-like polish.

"Black Knight" does away with all the hard work and dirty work of stove polishing.

If your dealer should not have "Black Knight", we will send you a large can, postpaid, for 10c.

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Makers of the famous "2 in 1" Shoe Polish.

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Boots among Farmers etc., in all parts of Canada is ever on the increase. That's the best evidence of "FIFE" quality and merit.

THIS LETTER TELLS ITS OWN STORY

Holland Ldg., Ont.
"Am highly pleased with 'FIFE' Boots. They are the same of solid comfort. We have had an exceptionally wet Spring, but I have never had a damp foot in them. Previous to this the reverse was the case. Thanking you for prompt attention to order."
WM. HAMILTON.

Made by a practical country shoemaker, the "Fife" is honestly built from finest Waterproof Leather, the kind that is soft and pliable and does not get hard in wear, and can be hid with or without hobnails as desired.

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Send size or draw outline of foot and Money Order payable at Strathmiglo P.O., Scotland. Send for the "Fife" Family Catalogue. Free.

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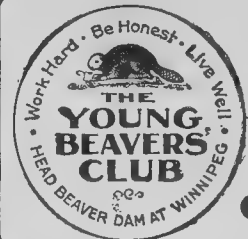
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FOR THE BOYS AND GIRLS.

Every boy or girl who reads this Department may become enrolled as a member of the Young Beavers' Club. The membership badge is a beautiful button, of the design shown within the circle above. These buttons are sent free to all members. To become a member one needs only to write a letter for publication in this Department of our paper and make application to be enrolled. The list of members is carefully kept in our big membership book, and we publish what we consider to be the most interesting letters.

All letters should be addressed to the Young Beavers' Club, Nor'-West Farmer Office, Winnipeg. Do not enclose any business communication in the same envelope.

From Africa.

Stony Lake, Sask.

Dear Editor,—My father takes the Nor'-West Farmer, and we (my sister, brother and myself) often see the letters in the Young Beavers' Club.

We came from Africa to this country nearly four years ago. We never saw snow till we got here. Then the cold (Oh, my!)—but we are getting used to it. My sister and I ride seven miles to get our mail. Our letters take two weeks to go fifty miles. We get our provisions sixty miles away. We have no school yet, although there are about eighteen children up here. Wishing the Nor'-West Farmer every success, I am, yours truly, Winnifred Lofts.

A Barnardo Boy who is Trying to make Something of Himself.

Holmfild, Manitoba, Dec. 26, 1910.

Dear Editor and Beavers,—Once more Christmas has come and gone, and we find ourselves a year older; and if every young beaver has enjoyed himself or herself as I have, I am sure we have no reason to complain.

Well, dear Editor, I am another of the "lost button" party. I took my button to the Killarney Fair and must have lost it in the fair grounds. I should be pleased if the Editor could send me another.

This is my sixth Christmas in Canada. I came out seven years ago next April. I am an orphan boy, my parents having died when I was about four years old. Then my relations put me in Dr. Barnardo's Homes, in England. I was boarded out in Norfolk, England, for about three years, and then they sent me out here. I sailed on the "Dominion," and landed at Portland after a rough journey. We then took a train to Toronto, where they sorted us for boarding out in the country. Well, I was sent to

Huntsville, Ontario, to live, where I was treated like a son. I stayed there, going to school and choring up around the buildings, for about three years, when I was sent to Manitoba to earn my living, which I shall try to do honestly, and follow the Young Beavers' motto—"Work hard, be honest, and live well."

What a boy like I am wants is good advice. I should like the Editor's advice on this matter.

Wishing the Editor and Beaver a bright and happy New Year, I am, yours truly, Daniel Pritchard, care of J. Stephens.

Editorial Note.—The Editor is always glad to receive a letter like this. First of all, it makes him feel glad because of the grand work that was done by Dr. Barnardo and that is being done now by a great many other good people who are looking after little orphans and other people who need a helping hand. And then it also makes him feel glad to think that Daniel and so many of the other boys like him are responding so well to the care that they have received. The Editor knows a number of very fine men who are Dr. Barnardo's Boys, and he believes that Daniel Pritchard will also be a fine man some day. There are other bits of good advice that we might give you, but that Beaver motto will stand so much thinking over that we do not care to add much more. Try to be true to it. If any part of that motto is any better than any other part it is this: "Be honest." Don't forget that "an honest man is the noblest work of God." That is really true. There may be grand mountains, beautiful flowers, countless suns and stars and laws so marvellous that we can never understand them all, but the noblest work of all is an honest man.

That may sound like a bit of a sermon, but it's true; just the same. Let's shake. Good day.

A Trip to the Bush.

Carstairs, Alta., Jan. 4, 1911.

Dear Daddy Beaver,—I am going to tell about a trip to the bush. My father and brother all went to the bush for a week so as to cut lots of poles. Well, while we were there I had my little rifle along, and I shot two squirrels and three chickens, and I would help my father quite a lot. My dad saw a lynx on the morning of the last day we were there. We bought our wood from a man who lives there, and his dogs got into our grub box, and he said we could come up to his place and have dinner. We had a long way to go to get home; it is thirty miles, and we did not get home till the next day. We were very hungry, but anyway I had a jolly good time. We got home the day before Christmas. I got a lot of toys and some pretty good candy. I and my brothers have good times skating in the winter. I slide down hill, too. I shoot ducks in the



A Winter Job.

BECAME SO WEAK AT TIMES COULD NOT WORK.

Mrs. George Hiles, Grimsby, Ont., writes:—"Just a few lines to let you know what Milburn's Heart and Nerve Pills have done for me. I suffered greatly with my nerves and became so nervous and weak at times I could not work. A friend of mine advised me to try a box of your pills, which I did, and soon found great relief. They are the best medicine I have ever taken for the heart and nerves. I recommend them to any one suffering from heart or nerve trouble."

Milburn's Heart and Nerve Pills make the weak heart strong and the shaky nerves firm by imparting a strengthening and restorative influence to every organ and tissue of the body and curing palpitation of the heart, dizziness, sleeplessness, anaemia, twitching of the muscles, general debility, lack of vitality, etc.

Price 50 cents per box, or 3 for \$1.25, at all dealers, or mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

EVER FACE A STORM



It is Wonderful to Me that such a Useful Article was not Invented Before.

Portage la Prairie, July 26, 1910
M. Dysthe, Esq., Winnipeg
Dear Sir,—I beg to say re the Face Protector, that it gave splendid satisfaction and I would not go out in the cold on a winter day without it. It is wonderful to me that such a useful article was not invented before.

Yours truly, W. E. METCALF, M.D.

Face Protector is mailed to your post office for \$1.

Agents wanted. Write for particulars.
MARTINIUS DYSTHE
WINNIPEG CANADA

Look Ahead!

There is only one last new country on this continent—the richest and best.

British Columbia is being opened up by three transcontinental and other lines of railway.

Over 30,000,000 acres of rich agricultural and fruit land; 50,000,000 of the finest timber, coal and mineral lands that have never been touched will be thrown open to the public for development. This is the famous Fort George country.

Do you want a share of the profits?

Let us send you free a copy of the "British Columbia Bulletin of Information," giving synopsis of mining, land, mineral and timber laws. Costs you nothing. Write to-day.

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spring, and my brother shot two coyotes this winter. We have taken your paper for about three years, and think we could not get along without it. Good-bye. Berrie McLaughlin (aged 11).

Narrow Escape from Burning the House Down.

Kamsack, Sask., December 9, 1910.

Dear Daddy and Beavers,—Is there room for another beaver in the dam? I am eleven years old, and like to read your page.

I am going to tell you about a fire we had in our house not long ago. One day my brother got a big fire in the stove, and my mother said she smelled something burning, so I went upstairs and found the stove pipe on fire. My mother got some water and put the fire out, and we went downstairs after a few minutes. Two of our neighbors came over and said they had seen fire coming out of the pipe. So we went upstairs and found the pipes were all red. We got more water, and our neighbors wet all kinds of cloths and threw them on the pipes. My brother and I went to the creek for more water, and we had to go for six pails before the fire was out. Mother and the neighbors took the pipes down after the fire was out. The floor was all covered with water and soot.

I had a garden this year with peas and carrots and a few flowers.

Wishing the dam success, I remain, Millicent Thornley.

Just Turned Eight.

Box 85, Souris, Man., Dec. 28, 1910.

Dear Daddy Beaver,—I am a farmer's son, eight years old on Dec. 8, and have been going to school for almost a year. We live two and a half miles from school, and have lots of fun going to and from school. A neighbor's children call for me, and we hitch our little hand sleighs behind the cutter and ride to school on them, taking turns at driving Billy, the pony. Poor Billy has heavy loads sometimes. We make believe we are on a train, and stop at different stations along the road, so it does not seem far to school. I remain, yours sincerely, Ross Hume.

Is the Librarian.

Tyvan, Sask., Dec. 27, 1910.

Dear Daddy Beaver,—My father has taken your paper for four years, and I like reading the boys' and girls' letters and also the stories which are printed in it. I have read "Sowing Seeds in Danny," and am now reading "Corner Stakes," which I think is quite interesting.

We have quite a large library in our school, and I act as librarian.

Our school gave an entertainment last week, at which we made over fifteen dollars, with which we are going to buy pictures for our school-room.

Wishing your club every success, I remain, yours sincerely, Harvey R. Allen (aged 13).

Some Fine Wolf Hounds.

Lucas, Man., Dec. 31, 1910.

Dear Daddy Beaver,—I like to read the other members' letters, and would like the other members to read mine. I think that is fair-play. My father has taken the "Nor'-West Farmer" for many years, and I hope he will keep on taking it.

My father and brother went to Winnipeg Fair and bought a threshing outfit. The man whom he bought the engine from gave him a pair of wolf hounds. One is two years old, and the other a little older.

After we had them a while the lady dog had twelve pups, but we killed six. We thought six would be enough for her to look after.

They are getting great big dogs now. We sold two of them, but have four more yet to sell. They are very pretty dogs. They will follow a rig and keep up as well as the older hounds. They never get tired.

My sister and I went out with the hounds during our Christmas holidays. We went to our uncle's. The man who has his farm rented took us out with his team and sleigh. We went three morn-

ings; the first two mornings we saw nothing, but the next morning we saw three wolves. I sent the hounds after them. We could not follow for fences, so I called the hounds back and went home.

We have a horse that was born blind, so my father gave it to my sister and I. She is five years old in the spring, and her name is Barty. She can follow the road all right if you keep a tight line on her and steer her when you come to a turn or twist in the road. We took her when we went over to our uncle's the other day. On our way home the hounds saw a white dog and went after it. They chased it into the owner's stable. I am fourteen years old to-day. I remain, Evelyn Charles Little.

A Pioneer.

Osage, Sask.

Dear Daddy Beaver,—I think this is a very good paper for everyone to read. We have been here seven years. We came in July. There were very few settlers when we came. We drove from Weyburn; that is forty miles across the prairie. My brother bought four oxen that fall, and the next spring he started breaking, and broke 212 acres that summer with the four oxen. He is down in Iowa this winter, but will be back in the spring. My mother and sister started for Iowa yesterday to see my grandpa; he is very sick. I have a pony; her name is Katie. She is a nice rider, and gentle for anyone to drive. Wishing the Daddy and all the little Beavers every success, I remain, sincerely yours, David M. Huffman.

Frank M. Russell, Crosthwaite, Sask., writes:—"Please renew my subscription to the Nor'-West Farmer, which is always leading farmers into newer and better ways of farming, thereby increasing the wealth of the Canadian West."

Concrete Sidewalks are Safe, Sightly and Everlasting

LUMBER used in damp places and on wet ground—as, for instance, in walks—has a very short life. It requires almost constant repairing and, in a few years, needs replacing.

Concrete, on the other hand, improves with age, and the very dampness which destroys lumber calls out the best qualities of the cement by making it harder and harder—until neither time nor traffic can affect it.



The best of wooden walks keep getting out of repair, and are a continual menace to life and limb. They are also a frequent source of expensive doctor bills and lost time. Then again, they are likely to eat up the original cost

in repairs before they are replaced.

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Write for our free book, "What the Farmer Can Do With Concrete."

It tells in plain, simple language, how you can save money on farm construction by using cement for Barns, Dairies, Foundations, Fence Posts, Troughs, Feeding Floors, Hitching Posts, Stalls, Silos, Stairs, and so forth. The Book is well illustrated with photographs, plans and diagrams. Fill out the coupon or send a postal to-day.

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You may send me a copy of "What the Farmer Can Do With Concrete."
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Our Clubbing Offers

Below will be found our Clubbing list for 1910. Let every present subscriber send us at least one **NEW** subscriber.

- For \$1.50**—The Nor'-West Farmer and Weekly Free Press, Winnipeg.
 " **1.50**—The Nor'-West Farmer and Weekly Tribune, Winnipeg.
 " **1.7**—The Nor'-West Farmer and Weekly Telegram, Winnipeg.
 " **1.50**—The Nor'-West Farmer and Family Herald and Weekly Star.
 " **1.50**—The Nor'-West Farmer and Weekly Globe, Toronto.
 " **1.50**—The Nor'-West Farmer and Weekly Mail and Empire.
 " **1.50**—The Nor'-West Farmer and Weekly Witness, Montreal.
 " **3.00**—The Nor'-West Farmer and Breeder's Gazette, Chicago.
 " **1.25**—The Nor'-West Farmer and Canadian Poultry Review.
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Contributions on experiences in gardening and tree growing are cheerfully given space in this department.

To Secure Free Trees for Shelter.

No doubt some of our new settlers are unaware of the fact that the Dominion Government distribute shelter trees to farmers free of cost. To such we would offer the advice that they write at once to the Forestry Station, Indian Head, Sask., asking for literature relative to the conditions on which these trees are sent out. And to all our readers we would offer the reminder that if they desire trees for planting in 1912, their application should be filed before March 1st of this year. Don't delay, but send in your application at once. Address it to Norman M. Ross, Chief, Tree Planting Division, Indian Head, Sask.

Tomatoes.

By Brenda E. Dow, Rush Lake, Sask.

It will be a long time before we may expect to see fresh ripe tomatoes on our tables, but it is not one bit too soon to prepare for the growing of the plants. The first thing to do is to make a proper selection of seed. One packet of tomato seed will be enough to raise all the tomatoes an average family will require. Spark's Earliana leads the list for earliness, and is a splendid tomato in every way. New Earliana, Early Ruby, and Earliest of All are all excellent varieties. The variety chosen and the seed obtained from a reliable dealer, the next thing is the planting.

The middle of January is the best time to plant, if early tomatoes are desired. Shallow boxes, about four inches deep and ten or twelve inches wide, and any convenient length, should be filled three inches deep with good soil. Any good garden soil finely pulverized and preferably sifted, makes a good filling for the seed boxes. Pack the soil firmly, smooth the surface, and make shallow drills one and a half inches apart by pressing on the soil with the edge of a thin board. Plant the seeds in these drills, placing them about one-eighth of an inch apart. Cover the seeds about one-quarter of an inch deep with sifted soil. Now set the boxes in a tub of water a little shallower than the box itself, so there will be no danger of the water run-

ning into the top of the box and washing the earth about so as to disturb the seeds. Allow the box to stand in water till the earth is thoroughly saturated. The water will soak through the cracks in the bottom of the box, and be absorbed by the earth, and when the surface of the soil looks wet all over, the earth is likely to be soaked to the centre of the box as well. Cover the boxes with panes of glass, and set them in a warm place where the sun shines on them. In from eight to twelve days the seeds will germinate.

During this time great care must be taken to prevent drying out. If the earth begins to dry on top, dampen it gently with luke-warm water. Should mould commence to form, remove it with a tooth-pick or other small tool and leave the edge of the glass raised a little to admit the air.

When the plants push against the glass, take it off; but be very careful not to expose the young plants to drafts of cold air. A chill at this time will kill them. After the plants are up well, they should be kept in a temperature of between 60 and 70 degrees, and should be given all the sunshine possible. They may be left in the seed boxes till they are four inches high. The air in the rooms where they are should be changed often, without chilling the plants themselves.

When the plants are too large to leave in the boxes, they should be lifted out gently (an old three-tined steel table fork makes a good tool for the purpose), separated, and potted separately in small pots. If tin cans are used, three plants may be set in one tomato can; or one in a salmon tin. The plants may be grown on in these same pots until the first week in April.

At this time hot-beds should be carefully prepared, in the same way as for planting early garden seeds. The earth in the hot-beds should be at least six inches deep.

The tomato plants must now be removed from the pots, and set six inches apart in the hot-bed. Each time they are transplanted they should be set deeper than before. When set in the hot-bed they should be sunk to the base of the lowest leaves. Hold the plant by the stem, put a little loose earth around the roots, pour in some luke-warm water, fill in more earth, press the soil firmly about the plant, and leave a layer of fine loose soil on the surface. When the hot-bed is full, shower the plants very lightly with water; put on the glass and cover the whole hot-bed over with old bags, carpets, blankets, or anything that will shelter the plants from the hot sun for a day or two. Gradually remove the sheltering rugs and give the plants all the sunshine they can have. If the heat becomes so great as to endanger the life of the plants, raise the glass a little and admit the air, but do not on any account shade them again. In cold, rainy weather

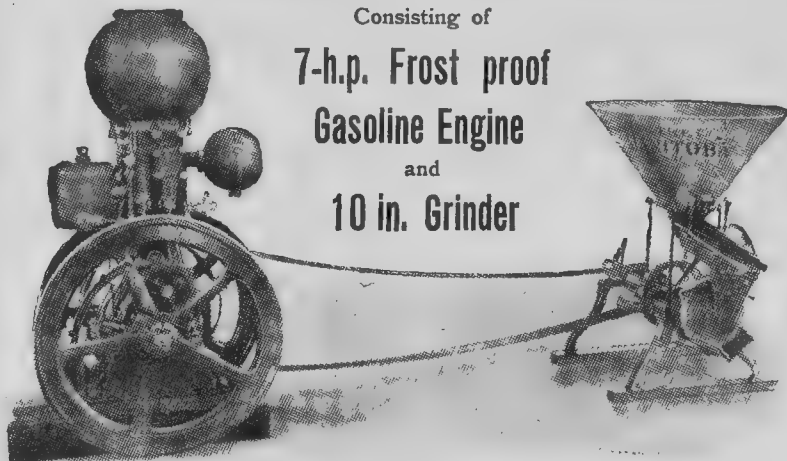


Part of the Vegetable Display made at Winnipeg Horticultural Exhibition, 1910, by the Dauphin Agricultural Society. The big pumpkin in the centre weighed 100 lbs., although gathered during the month of August. "Some pumpkins," isn't it?

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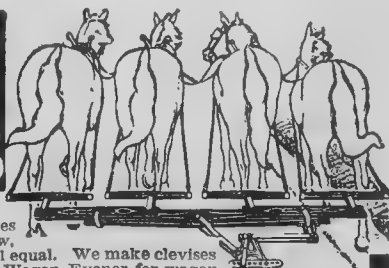
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keep the glass closed. It is quite possible that the plants will grow so fast as to make it necessary to raise the frame of the hot-bed; for it will not be safe to leave the glass off on cold nights. However, the more the glass can be left off, the hardier the plants will be.

When the days grow warm in May the gardener who is new to Saskatchewan will be tempted to set the plants out in the open garden. Even old gardeners are often tempted in this way; and often a valuable lot of plants are lost early in June by heavy night frosts. I have found it a fairly safe rule to wait for three days after the first full moon in June. We seldom have heavy frosts after that. On rare occasions plants set out in May have survived. If it is deemed advisable to experiment, the wisest way would be to set out part of the plants early and reserve some for later transplanting. Then if frosts do come all the plants will not be lost. The plants should be in blossom before being transplanted to the open garden.

Transplant in the same way as from the can to the hot-bed. Be sure to set the plants deeply, and fill the holes with water. If the plants have been well hardened off in the hot-bed they will need no shelter. If shelter is desired from wind or sun, a few shingles stuck in the ground around each plant serve the purpose better than tin cans or old pails.

Tomatoes mature most quickly. Do not prune the side branches very much; but as the fruit-clusters form, nip off the ends of the branches, leaving two fruit clusters on each. As the plants grow very rapidly, daily pruning may be needed. Fruit that is well grown but green when cold nights come, will often ripen nicely if plucked and packed in dry bran and kept in a dry cellar.

Editorial Note.—Probably not many of our readers will care to go to all the trouble involved by following the above instructions, and unless they wish very early fruit they can secure good results with much less work. The writer has grown an abundance of ripe tomatoes in the open for years, the first fruit ripening on the vines about the 30th of August. From that time on one can have lots of ripe fruit, the green tomatoes ripening nicely indoors if put in any warm place.

For ordinary culture we would advise the Earliana, planted very shallow in a flat box about April 1st. When the plants are about two inches high transplant to a larger box so as to have the plants about two and a half inches apart. A good sized box of these plants can be lifted out into the sun in daytime during the warm spring days, and just lifted indoors at night. We have never favored giving them any extra petting and do not worry much if the plants do not grow very rapidly when they are exposed out of doors at first. So long as they are not frozen or struck by strong winds, they are growing hardier and getting more root, and after they are set out from these boxes, early in June, they go like wild fire. When planting out set down two or three inches further into the ground. The tomato roots out very readily from the stalk, and if set down deeply it produces a great mass of roots and a very strong bushy plant.

We do not wish to disparage the advice offered by the above writer—simply to give our plan, which really involves very little work except the first transplanting, which task may seem to be a trifle tedious. However, when one sees the big load of tomatoes that each plant gives a little later, the minute or two needed to transplant a young seedling seems but a trifle. Tomatoes do very well in this country, and are worthy of more attention.

Up above the 49th degree of latitude we are on the "firing line" when it comes to horticulture, and so only a limited interest is taken in the work of our horticultural societies. But it is well to remember that we are next neighbors to one of the very largest horticultural societies in the world. We refer to the Minnesota Horticultural Society, which has a membership now aggregating 3,129.

Gardening in a Dry Year in Manitoba.

By Dr. H. M. Speechly, Pilot Mound, Manitoba. Paper read at the Annual Convention of the Minnesota Horticultural Society.

"O for a lodge in a garden of cucumbers!
O for an iceberg or two at control!
O for a vale that at mid-day the dew cumbers!
O for a pleasure trip up to the Pole!"

Most of us Manitobans felt thus, like Rossiter Johnson, when the heat of last June seemed so untimely and so scorching to our seedlings. All gardens south of township 30, on any range, were subject to a very light and capricious rainfall during the past spring and summer. The month of June was intensely hot and nearly rainless, while for the rest of the season we received so limited a rainfall that it was surprising that any farmer could reap even half a crop. The gardens both of vegetables and flowers suffered much from drought but particularly the flower gardens.

I am not concerned now to talk of

those gardens which received regular watering by machinery and irrigation. The difference is important, because many people have no such conveniences and most are too busy to spend much time watering by hand. The most we busy folk of either sex can do is to give every now and again some favorite patch the advantage of a good soaking in the hope that it will thus survive the drought. In such cases it comes to pass that the work put into cultivation both in the fall and the spring shows its beneficial work.

In fact we rely on the results of careful cultivation. If the weeds have been kept down late and early; if the beds have been dug deeply and pulverized thoroughly; if the soil is well fertilized—then the gardener can rely on preserving a loose surface by regular hoeing and will be to a large extent independent of the extreme results of drought in this latitude.

Of course no one in such a season as that of 1910 can possibly expect to be exempt from some of the effects of drought unless systematic artificial watering is employed. When we see old and well tried perennials like the iris, the peony and the larkspur fail, we must not be surprised at the failure of

some of our annuals. Nevertheless, in a garden which grows many kinds of annuals pleasant surprises occur through a dry season sufficiently often to make some compensation for other losses. Still it is really very annoying to have all one's little plans spoiled by droughty conditions; seeds refuse to germinate; seedlings wilt as if burnt just above the edge of the soil; and where one expects to have plants there sparrows take a dust-bath or ever the gardener is around in the morning!

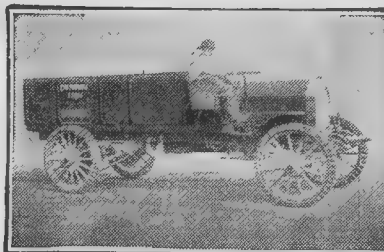
Hence it is well worth while in the interests of practical gardening to exchange experiences with those perennials and annuals which grow and bloom well in a dry year.

Believing as I do that perennials are the backbone of our gardens in the North-west and essential to them, I will discuss perennials first. Probably those perennials which arise from bulbs take first rank as successful bloomers; they may average rather less in height than in wetter years, but their blooms are encouraged to develop fully by the abundant sunlight.

All tulips which had been two years or more in permanent quarters, and even the latest varieties, made a better showing than bulbs planted in the fall of

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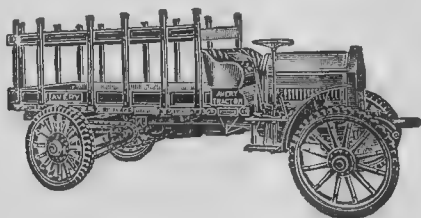
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1909. The blue squill, both in beds and naturalized in the lawn sod, was remarkably brilliant this dry spring, breaking all my records by blooming between April 10th and 17th, and though subject to violent changes from hot to cold whenever these brave little flowers froze at night they cheerfully thawed by day without wilting. With them things never "looked blue!" All my lilies bloomed well, from the wild orange lily, which blooms at the end of June, to the latest tiger lilies in August. The Elegans type of lilies might have been a little short in the stalk, but they looked the sun in the face from July 12 onward through their season with brilliance. But nothing could be brighter than the Siberian lilies (*Lilium tenuifolium*), with which the brightest tomato finds it hard to compete. Of *Lilium candidum* I have no report to make, a bulb with which I have been unsuccessful, partly, I believe, because I planted it too deeply and too late in the season. Day lilies were very satisfactory both in leaf and in flower.

As for rooted perennials, the Oriental poppy was as royal in color as ever and enjoyed the abundance of sunshine. Once more, too, the blue *Polemonium* (Jacob's Ladder) set up its ladder and climbed heavenwards without complaint. Pinks of various perennial kinds were indifferent to the early drought of June but later lacked brilliance and stamina, but were grateful when by chance some sprinkle of rain washed the dust away. Scarlet lychnis again proved its adaptability to circumstance; indeed this handsome plant will stand anything except strong wind.

Quite unlike their taller brethren the *Pumilium* varieties of delphinium increased their reputation as certain and profuse bloomers, borrowing from the ever blue sky some of its glorious color. With greater delicacy of habit but with no less certainty the perennial flax waved on feathery stems a paler blue cup centered with pale yellow. And finally if sweet williams were perhaps less brilliant than in damper seasons, yet they added color and fragrance where and when these were badly needed.

Now with regard to annuals: Generally speaking those that bloomed early or late seemed to get the best chance, better than those which flowered in July and August. None enjoyed the dry spring better than the blue *Phacelia campanularia*, which after blooming brilliantly seeded itself down and actually reproduced itself and flowered again in September and October. The lavender *Woodruff* (*Asperula*) was invaluable in June. Perhaps the most useful flower of all was the newly introduced *Star of the Veldt*, or *Namaqualand daisy* (*Dimorphotheca aurantiaca*), which sown in mid-May commenced flowering late in June and never failed for three months and a half. Because it stands both drought and frost it is of great value to our climate, and being of low habit and tough in stem it is also able to stand the worst of winds. Another plant which kept up its reputation as an annual fit to stand any kind of weather was the corn-flower (*Cyanus minor*); and the annual *coreopsis* was, like *Tagetes*, a most surprising bloomer if it survived the seedling stage. Our two great producers of sweet odor, the night-blooming stock and *mignonette*, stood

the drought wonderfully, especially the former, while the latter after a little rain had fallen in August seemed to take a fresh start. So did *Linaria* (lead-flax) which is an excellent plant for covering awkward blank places. No plant was better able to resist the dry spell than the summer cypress (*Kochia*), though not quite so luxuriant in growth as usual; and its bright green was never so refreshing as it was this summer. Poppies and mallows evidently looked for more rain but failing to get it just made the best of sunshine undiluted and gave us plenty of color.

Have you ever tried planting *godetias* where you have seeded down *mignonette*? This seems a good plan in a dry year, provided you thin out the *mignonette* so as to give the *godetia* a chance. The latter, then, appreciates the protection given to its roots by the spreading stems of the other.

It is a question whether *petunias*, annual *phlox* and *verbenas* ever do badly with us once they acquire a few leaves, and all three were very brilliant in the late summer and early fall.

Finally, one comes to the conclusion that in a dry year as in a wet it is hard to beat the ten-weeks stocks, or indeed any annual stocks, as a utility flower good for show or scent. Our stocks bloomed all through August and September and till about the 17th of October. Our September frosts have no such effect on stocks as they have on asters, so that the stock holds its own, as a rule, far into October. Asters which looked as though they never could get past the seedling age in July hung on and surviving were very effective till late in September except where the blight spoiled the plants. It is clear that a dry year has no power to kill the bacteria which blast as if with yellow flame the most promising of seedlings. Will some one tell us what is the remedy for this blight? Should we blue-stone the seed or apply toluene to the soil?

In conclusion: Some amateurs readily lose heart over the failures of a dry year, but surely these are just the stimulant we need to keep us from falling into a rut and make us think how to become independent of weather conditions.

School Gardens.

School gardening in Western Canada has not reached so advanced a stage as it has in some parts of the United States. The movement, however, has received encouragement from various directions and is being fostered to a considerable extent by the departments of education. The Manitoba Department of Education has done considerable to encourage the movement and the Manitoba Horticultural Association has provided school gardening competitions and offered prizes for the best gardens. Each year, now, the second class normal teachers take a summer course at the Agricultural College. By this means it is hoped to keep the agricultural features and possibilities strongly to the front in all school work, and especially in the country schools. Instructional work in school gardening is given at the College. There the teachers are shown some of the things that can be done to interest the child in things of the field and farm.



School Gardening at Provencher School, St. Boniface, Joseph Fink, principal.

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The Provencher school gardens were among the best in the province this year.

Modern education must include more than book learning. Over and over again has it been demonstrated that the practical man has "miles the lead" of his theoretical competitor in business. If it is important for the business man to receive a practical education it is equally so with the farmer's child. It is becoming recognized more and more that it is of just as much importance for the country boy and girl to watch and understand how seeds and plants grow and develop as it is to do sums and other school exercises. This seems to be the correct idea. The idea behind school gardens is to increase the practical—the most useful—side of child education.

The Provencher School, St. Boniface, was one of the first schools in Manitoba to take up this new phase of educational work. Last year, and this year also, the pupils had some excellent gardens under the direction of Principal Joseph Frink. A considerable number of schools over the province have had very fair grounds. Oak Bluff also has been a leader in this work, and had nice gardens both last year and this, largely due to the efforts of their energetic secretary, G. P. Wastle. The rural schools are falling into line with the idea, although the summer vacations handicap them to a certain extent.

An Easterner's Opinion on Western Horticulture.

Under the heading, "Horticultural Possibilities of the West," the Canadian Horticulturist, published at Peterborough, Ont., offers some comment on the conclusions reached by W. T. Macoun, Ottawa, Dominion Horticulturist, who spent some time during the past summer

in looking over the horticultural work at the branch experimental farms, and also making other observations as to the conditions generally. The Horticulturist says:—

"In the prairie provinces he found that in most places the growing of apples had proved a failure, but after carefully looking into the conditions he has come to the conclusion that the failure has been due as much or more to the condition of the soil as to the severity of the climate. The prairie soils are for the most part rich in humus, containing a large proportion of nitrogen; the subsoil is, in most places, clay; and while the surface soil becomes very dry at times, seriously injuring annual crops, the roots of trees are in the moist, cool soil below. The richness of the soil and the moisture of the subsoil favor a succulent growth, which does not as a rule ripen sufficiently to be able to withstand the severe winters, with the result that the trees are being constantly killed back.

"Mr. Macoun feels that he is correct in his conclusions by what he saw in Southern Manitoba at Morden and vicinity. Here the conditions of soil are quite different. There is a gravelly subsoil which thoroughly drains the land, and the soil is not so rich as in most of the settled parts of the prairies. Here he saw apple trees, perfectly healthy and hardy, twenty-one years of age, quite as good trees as may be seen about Ottawa. There are thousands of acres along the Pembina Hills in Southern Manitoba where the conditions appear as favorable as at this place. Mr. Macoun, therefore, believes that while hardy apples may be originated which will withstand the adverse conditions of both soil and climate, among such being the hardy cross-bred apples originated by Dr. Saunders, and found hardy in many places, the com-

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Trusting to the glowing accounts of some very much interested person, the man from the prairies used to settle without enquiry or investigation in any old district of British Columbia. It speaks well for B.C. that even this kind of newcomer was generally successful. BUT THESE DAYS ARE OVER. And now, for the man who seeks a less rigorous climate and more beautiful surroundings there can be no such thing as over-carefulness in selecting a district in which to settle. Even to the famed Okanagan Valley this warning has an application. Investigate therefore the claims set forth in this advertisement and also in the booklet which the Secretary of the Armstrong Board of Trade will send to you if you will mail your name and address. The C.P.R. figures prove that Armstrong, the Garden District of the Okanagan Valley, is the most productive town in all British Columbia, surpassing the rest of the Okanagan combined. Fruit-growing market-gardening, mixed farming, poultry raising and dairying are all established pursuits, carried on with great profit in this district. There is no irrigation required or practised, no syndicate and holdings and no boom prices for land. Disease is unknown, water supply is unfailing and of great purity with electricity and power in connection. The climate is delightful and the educational facilities are of the highest grade. Armstrong is nearest the markets and its products command a special price therein. For Booklet and any information desired, send your name and address to the Secretary Board of Trade, Armstrong, Okanagan Valley, B.C.

See Armstrong, B.C.'s Garden District.



Teachers' Experimental Gardens, Manitoba Agricultural College.



Farm Home of Mr. T. Graham, Sintaluta, Sask.

mercial orchards of the prairies, if there are ever such, will be situated in those parts of the West where the soil is lightest and the drainage best.

"Native plums and bush fruits succeed well in many parts of the prairie provinces. Annual and perennial flowers do particularly well on the prairies, the colors appearing to be intensified by the clear atmosphere and bright sunshine there. Ornamental shrubs of many kinds succeed well, as do a number of species of trees, most of the shrubs growing along the driveway at Ottawa being hardy on the prairies. In Mr. Macoun's opinion there is no reason why the surroundings of the farmer's home on the prairies should not be made as beautiful as in the province of Ontario."

The Campanula or Bell Flower.

C. S. Harrison, York, Nebraska.

These flowers are named from Campana—a bell. There is a very large family of them, some 200 varieties, including annuals, biennials and perennials. Annuals must of course be sown every spring. Biennials, like hollyhocks, come up one year and bloom the next and then die. The perennials, like the iris, phlox and peonies, live from year to year.

The cup and saucer varieties have very large and striking flowers. These are biennials. They are about as conspicuous as any in the flower garden. They are so large and delicate that they should have some shelter from the winds.

The Carpathica, blue and white varieties, are perennials. They have fine blooms and are conspicuous for their delicacy. They are low creeping plants, and are not of special merit save to adorn rock work. The blue are fine bloomers growing on stems two feet tall. They flower gloriously in Minnesota. I hardly knew them when I saw them blooming there. They are very hardy, reproducing themselves from root divisions and from seeds as they fall and

come up whether the season is wet or dry. They are exceedingly hardy and a fine flower for the north, especially.

Propagation.

Sow the seeds early in the spring. Don't expect the biennials to be perennials. The cup and saucer sorts need some protection in the winter, but when they bloom you will find that it pays, for they will give you surprises of loveliness.

All varieties like rich sandy soil with good drainage. Full blown specimens of the Canterbury bells can be transplanted to pots for house decoration by soaking the soil about them with water and lifting with a ball of earth.

Interesting Plant Discoveries.

An agricultural explorer of the U.S. Department of Agriculture has spent the year exploring the plant resources of South-western Asia. Among the large number of interesting things he has secured is a variety of alfalfa from Erivan, which is said to be longer lived than the Turkestan; a species of medicago from an altitude of over 4,000 feet, which is already being utilized in the work of creating new hybrid alfalfa for the North-West; a wild almond from the Zarafshan Valley, found growing on the dry mountain sides at an altitude of 6,000 feet; a drought-resistant cherry for home gardens in the North-West; and a collection of apricots with sweet kernels from Samarkand; some remarkable olives which have withstood zero temperature and still borne good crops of fruit; scions of a newly produced crab apple, reported to be a better keeper than American crab apples; the Slew Abrikose, a variety of apricot with a skin as smooth as that of a nectarine; a remarkable drought-resistant poplar for the Middle-West; and a wild strawberry, fruiting at the end of February on the dry calcareous cliffs of the Caucasus.



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OUR STERLING BRAND CLOVER SEED is the cleanest and purest obtainable; it is Minnesota grown and has been produced from plants which have endured the extreme cold of winter and the alternate freezing and thawing of spring and fall thus making it hardy and vigorous.

BY sowing our seed, clover may be grown in northern sections where, until recently it was not thought possible for it to survive. Our seed when grown farther south is more productive, of greater vitality and the hay is of better quality than from seed produced elsewhere.

Read more about all kinds of clover in our 27th ANNUAL CATALOGUE. It tells of the value of various clovers for different purposes, their adaptability to soils, how to handle them, etc. This handsomely illustrated 144 page book is full of valuable information on the best varieties of seed for the garden, field, farm and lawn. It will be mailed without charge on request. Write for it today.

NORTHROP, KING & CO., Seedsmen
117 BRIDGE SQUARE
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The Miniota Farmers' Mutual Fire Insurance Co.

Head Office: BEULAH, MAN.
Incorporated and Established in 1885

Amount of Insurance in force Dec. 31st, 1909, \$6,259,443.00

Assets " " " \$155,768.95

Cash Reserve, Assets " " " \$62,839.34

Financially strong, This Co. has a larger Cash Reserve per \$1.00 at risk than any other farmers' Mutual Co. in Western Canada.

Farmers get information re our "Blanket Policy," the best thing yet in the line of Insurance. Rates the lowest procurable. Reliable hustling agents wanted in all unrepresented districts. Correspondence solicited.

The Canadian Bank of Commerce.

Annual Meeting.

The forty-fourth Annual Meeting of the Shareholders of the Canadian Bank of Commerce was held in the banking house on Tuesday, 10th January, 1911, at 12 o'clock.

General Manager's Address.

The General Manager said in part:

We have pleasure in presenting you with a statement which is in many respects a culminating record in the Bank's history. The past year was remarkable for a large volume of business and general prosperity, which justified our predictions when last we had the honor of appearing before you. At no time during the year was there any apprehension lest we should fall short of our estimates. The trend of business, uniformly satisfactory profits, and comparative freedom from losses make it possible to lay before you the results of our operations with great confidence and a full assurance that they will meet with your very cordial approval.

The profits for the past year were \$1,838,065.04, an increase of \$327,370 as compared with those of the previous year—being 18.38 per cent. on the paid-up capital. This result was obtained after making a careful revaluation of our assets, and ample provision for all bad and doubtful debts.

In accordance with our recommendation, your Directors increased the dividend to nine per cent. per annum, which called for a payment of \$900,000. We are gratified that our present and prospective prosperity justifies the expectation of a larger return on your capital, and it will be our pleasure to suggest the payment of ten per cent. for the coming year.

You were good enough to pass a resolution at the last annual meeting authorizing the grant of \$20,000 as a nucleus for a Widows' and Orphans' Fund, and this sum, with the regular payment of \$30,000 towards the Pension Fund, accounts for the \$50,000 charged against profits for this year. After very careful investigation and actuarial examination, we are pleased to say we have been able to adopt a comprehensive scheme to embrace in one fund a beneficent recognition of every member of the staff. We cannot express too strongly our gratification at this consummation of our desire for the welfare of the service. This crowning act will do much to foster the best interests of the Bank, so zealously guarded since its establishment.

After providing for these appropriations we were able to transfer to Reserve Account \$1,000,000, and to carry forward \$310,204.06 in Profit and Loss Account.

Our deposits show an increase of \$6,347,275, which we regard as a healthy growth under this head; the accession of special amounts of a temporary nature, mentioned in last year's statement, equalling the withdrawals during the year. On account of the expansion of our commercial business in Canada current loans and discounts have increased \$10,900,344, and this necessitated the withdrawal of \$9,523,788 from our call and short loans in the United States. We report \$2,167,410 more cash on hand than on last year's statement, and our quick assets equal 45 per cent. of our liabilities, excluding capital and surplus.

The extraordinary development of Canada, the manifest need for the extension of our system to meet the requirements of a rapidly growing business, and the protection of our business at points where we are already established, make it imperative that we should do our duty in opening branches, often anticipating the necessities of the case. We are not unmindful of the criticism activity of this kind engenders, but are conscious of the fact that we are expected to do our full share in the upbuilding of the country which gives us privileges with the understanding that our service will be commensurate with our opportunities. We realize our accountability to the

shareholders of this Bank, who have entrusted us with a large investment, and we believe you will be satisfied with the assurance that we exercise a prudent caution as we continue to open branches in new fields.

We have closed a very satisfactory year, our accounts showing unusual profits and a healthy advance in material prosperity. There was a steady and persistent demand for money to care for the needs of merchants, manufacturers, and our farming community, with rates fairly well maintained, the fluctuations being unimportant, notwithstanding the uncertainty of financial affairs in other centres with which we are intimately connected. The outlook for easier conditions in Great Britain will probably result in the sale of Canadian securities abroad in large volume, and the prospect of cheaper money in the United States may have a reflex influence here; but with the great development in all parts of Canada there should be employment at remunerative rates for funds to carry on ordinary business, and all the indications are favorable to active trade along safe lines. We enter the coming year with a confidence begotten of past experience, and hope to share in the general prosperity, and to enjoy reasonable freedom from undue anxiety in the management of our institution.

President's Address.

The President then said in part:

Doubtless the feeling most strongly present at the moment regarding business conditions in Canada is that we are enjoying a prosperity as great as we have ever known. Whatever significance the check of 1907 had at the time, or should still have, even the memory of it seems to have passed away, and with larger foreign and home trade, larger bank clearings, a larger amount of building in cities, a larger amount of railway construction, and larger immigration than in any previous year, it would be strange if we felt otherwise. Our Western crops were not to our liking this year, bankers know that a little more expansion may make money scarce, and the pace of real estate speculation has brought on the inevitable temporary exhaustion, but, important as these things are, they have little effect on the situation as a whole. Even the large reduction in the volume of business in the United States is regarded as mainly due to political unrest and as having no direct bearing on our position. That we are experiencing very great prosperity is a matter evident to all, but if we examine in detail the circumstances accompanying this prosperity, there is much that is not satisfactory. Great Britain is a country that can afford to import much more than it exports because the world owes it annually an enormous sum for interest and other things, for which it must, of course, take payment mainly in merchandise. The United States is a country which should export annually about \$500,000,000 more than it imports in order to pay for interest, and for the money drawn from the country by permanent absentees, tourists, emigrants to Canada, etc., and because it cannot afford to increase its debt to foreign countries, having already about 100,000,000 people and a scarcity in many raw materials. Canada is one of the new countries which is entitled to, and which must, during its period of rapid settlement, import more than it exports. The difference is met, however, by debt obligations which must some day be paid. The question then, as to how much we should go into debt is the same which confront the individual in trade, but the considerations are so large and so complicated that it is hard to know when we are wise and when unwise. What is certain, however, is that when a man is in debt he should live sparingly, not extravagantly, and that if, with the money he has borrowed, he has put himself in the way of making a product with

which he hopes to pay his debt, he should strain every nerve to make and sell as much of that product as he can, in order to reduce his indebtedness to the lowest point possible. Now, Canada is somewhat like a man who, having a rich inheritance in land, borrows to develop it, and, confident of its future value, spends freely for his present gratification, while he does not make effort enough to create the needed present revenue from his property.

During the fiscal year 1910 of the Dominion Government our imports and exports both reached record figures. Our imports were \$391,803,000, and our exports \$301,358,000, the balance against us being \$90,445,000. The excess of imports is not a record, having been exceeded in 1907 and 1908, but it is, as was expected, a great increase over the previous year, when, because of the contraction in 1908, the excess of imports was only \$48,162,000. The total of our foreign trade was \$693,161,000, more than three times the volume of twenty years ago. It is unfortunate that we cannot estimate, even roughly, the volume and growth of our domestic trade during the same period. Our imports from the United States were larger than ever, \$237,693,000. This is almost twice the amount of ten years ago. Our exports were a trifle less than in 1908, being \$113,145,000. The sum we had to pay to the United States in money was therefore \$124,548,000, or more than two and a half times the amount we had to pay ten years ago. This money was obtained partly from the surplus in our exports to Great Britain, partly from the sale of securities in Great Britain and Europe, and to a small degree from investments in Canada coming from the United States, and the wealth brought in by settlers from that country. Our imports from Great Britain were \$95,677,000, a trifle less than those of the record year 1908. Our exports were a record, being \$149,634,000, against \$134,484,000 in 1908. The surplus in our favor was \$53,956,000, a smaller figure than in six of the last ten years, and about eighteen millions less than in the most favorable year, 1903.

It is clear that if we chose we could largely increase our exports. We know that in almost all parts of Canada the majority of farmers produce very much less wealth per acre than would be possible with greater effort and with the necessary labor available. The farmer who has no mortgage or other debts, who finds labor extremely hard to obtain, whose standard of comfort is fixed, and who is no longer young, cannot easily realize that he has any duty to the State which he does not perform, nor can any pressure be brought to bear upon him except by friendly argument and practical illustration. The fact remains, however, that because the farmers as a whole do not produce more, our debts to other countries for national expenditure made in anticipation of future development are more burdensome than is necessary.

The total value of the field crops of Canada, at local market prices, as estimated by the Census Department, is \$507,185,000, the product of 32,711,062 acres. The corresponding figures for 1909 are \$532,992,000 from 30,065,556 acres, and for 1908, \$432,534,000 from 27,505,663 acres. The loss in 1910 was in wheat, oats, and barley, in which the acreage was 20,992,900, with a value of only \$248,738,000, against 18,917,900 acres in 1909, with a value of \$289,144,000. So that, while the decrease in all field crops is \$25,807,000, the loss in wheat, oats and barley alone is \$40,406,000, leaving a handsome increase in all other field crops.

The most curious feature in Canada at the moment is the outbreak from time to time of agitation stirred up, sometimes by guilds, sometimes by strikes, and often by city councils, but always by one set of interests against another. We have a more general prosperity than could readily be found elsewhere, now or in the history of the past. The only people with a just complaint are those whose labor and brains are paid by a more or less fixed recompense, which is not adjusted in accordance with the change in prices. These are the people who, as a rule, do not complain, perhaps because their fortune is the same in every country.

In the case of the majority of our wage-earners there is some adjustment, whether sufficient or not. In any event, the overwhelming bulk of our people share in our prosperity, which, be it remembered, is the result of our combined activities. It is not due to the farmer alone, nor to the mechanic, nor to the railroad, the bank, the manufacturer or the shopkeeper. It is the result of the fortuitous circumstances under which we are enabled by our combined effort to make profitable use of the natural resources of Canada. Is it not, therefore, most regrettable that, instead of each individual finding happiness and contentment in his own prosperity and in his share in building up this country, which is his guarantee of future well-being, we agitate merely that we may still further profit as individuals, even if other Canadian industries are made to lose or are destroyed thereby?

The Maritime Provinces.

While there is, perhaps, less change from year to year in the Maritime Provinces than in most parts of Canada, there is a slow but steady improvement in many industries, and the year just closed has been one of marked prosperity. The results from general agriculture have been perhaps the best in the history of this part of Canada, both as to yield and as to price. The value of the field crops of the Maritime Provinces in 1910 was \$50,150,000, compared with \$49,684,000 for 1909. Potatoes suffered so severely from rot and the yield was so small that this important crop brought in only about half the usual returns. Apples and other small fruits, excluding berries, were most unsatisfactory—apples being less than one-third of a crop—but in other products, especially hay and grain, crops and prices were so good as to second the admirable efforts of the Agricultural College to impress upon the people how profitable are the results to be obtained from land which is fertile and near to good markets, but which lies idle largely because the people of many parts of these provinces have been used to other pursuits. In Prince Edward Island dairying and stock-raising are increasing in volume and have been very profitable during the past year, and the same is true of some parts of Nova Scotia, but in New Brunswick, notwithstanding the higher prices and the fine hay crops, much less cheese and butter is made than five or ten years ago, many less factories and creameries are in operation, and the stock of horses, cattle and sheep is actually less numerous than ten years ago.

Ontario and Quebec.

A year ago, despite some fluctuations in conditions, the record of agriculture in Ontario and Quebec was most satisfactory. This year the record is still better, and it is questionable if as regards yield or prices, excepting in the case of fruit, potatoes, and one or two minor articles, a more generally successful result was ever obtained by our farmers. High prices in 1909 had caused a larger acreage of grain to be planted, farm work began early in the spring, fall wheat came through the winter well, harvest results were excellent, hay gave a large yield, roots in most localities did well, cattle, horses, hogs, poultry, eggs and all dairy products brought high prices, but the supply was unfortunately always insufficient. The value of the field crops of Ontario and Quebec for 1910 was \$301,109,000, compared with \$290,469,000 for 1909.

Although in the fruit districts where apple growing is carried on scientifically, as fine apples were produced as could be desired, the crop as a whole was as great a failure in Ontario as in the Maritime Provinces. In neither district can accurate statistics be obtained, but the quantity shipped from Montreal is sufficient to show what a bad crop means. In 1910 the shipments were only 163,000 barrels, there being no recent year comparable with this except 1901, when shipments were only 122,000 barrels. The highest figure reached was in 1903, 732,000 barrels, and the average of eight ordinary years was about 515,000 barrels. Doubtless no care would have averted the main cause

of a lessened crop, but with scientific methods the number and size of the apples would always be greatly increased and the quality greatly improved.

We used to be able to follow closely the growth of our dairying industry by using the figures of the shipments of cheese and butter from Montreal as examples, but new conditions have arisen, and these figures are now of little use. The consumption of butter in Canada and of cream in Canada and the United States has practically destroyed our foreign trade in butter, which one year reached 573,449 packages, valued at \$7,400,000. The same causes have kept our cheese exports almost stationary for three or four years. The figures for 1910 are 1,892,000 boxes, worth \$17,503,000, as against the record of 2,395,932 boxes in 1903, valued at \$21,500,000. One great departmental store collects direct from the farmers sufficient milk to keep several cheese factories busy.

Successful as the year has been with the farmers of the East, there is a growing conviction that this part of Canada is at the moment a land of neglected opportunity, largely owing to the easy success of those who have taken up the cheap lands and virgin soil of the West. While many think that more effort is necessary to success in the East, facts gathered from recent experience show that in no part of Canada can a larger return be obtained in proportion to the intelligence employed than here in Ontario. We have one of the best and most famous of Agricultural Colleges, and wherever one of its students is farming, the effect of his knowledge on his own farm and the influence of his example on those of others is most marked, but there are many parts where no such examples of improved methods exist, and the Government has now adopted the plan of taking the College to the farmer. The Farmers' Institute lectures and the Agricultural Fair prizes have done and are doing much good, but the new effort is of a much more effective and practical nature. It is sought by demonstration farming actually carried on by experts acting for the Government, and by visits paid to various parts of the Province by experts who are able and willing to give advice, gradually to break up that condition of contentment with the farming of our fathers which is so great an enemy to progress. If young men can be shown the results of a thorough knowledge of stock-raising as compared with not knowing, of caring for orchards instead of not caring for them, of systematic manuring and of proper drainage, of a knowledge, indeed, of the many things which bring about the enormous difference in results between old-fashioned and up-to-date farming, we may hope that more farmers' sons will stay on the land, and that many city men will settle there, and that increased wealth and happiness will be the result. But actual results are more powerful arguments than mere preaching. An orchard in Ontario which yielded prior to 1909, \$100 worth of apples annually, produced in 1909 in new hands fruit worth \$1,437, the net profit on which was \$974, in addition to apples not suitable for eating worth more than the whole crop before the orchard was properly cared for. In other cases 8 acres of orchard produced \$2,489 gross and \$1,890 net; 5½ acres produced \$2,237 gross and \$1,720 net; 1½ acres produced \$539 gross; and many cases of yields in money from \$150 to \$300 per acre could be shown, the result varying, of course, with the age of the trees but mainly with the practical knowledge of the fruit grower. In vegetables one man with 17 acres raised 127 tons of cauliflower, which he sold for \$30 per ton, a return of about \$225 per acre. We know that for years large profits have been made in Ontario growing fine roses and other flowers for New York and other United States markets, but we now hear of one experienced hybridizer, who is also a banker, who has made himself famous as well as prosperous as a producer of innumerable species of gladioli, which are in demand in all quarters of the world. It must be remembered that these results are not due merely to the proximity of a market, but that in almost any part of

Western Ontario similar things can be done. Too much credit cannot be accorded to the Department of Agriculture of Ontario for the effort it is making, and we can but hope that the number of lecturers and demonstrators will be increased, and that they will be persistently kept at work as a permanent force working for agricultural improvement. In some parts already a new tone has been given to farm affairs, emigration to the West has nearly ceased, farm values are increasing, and intensive farming is a subject of general and keen interest.

That a more enterprising spirit is necessary may be readily gathered from the statistics of live stock in Ontario. From 1901 to 1907 the number of horses on hand grew from 620,000 to 725,000, but since that year there has been practically no increase. The number sold annually has, however, increased from 51,000 in 1901 to 98,000 in 1910, which is evidence enough of the difficulty of maintaining a stock on hand. The number of milch cows in 1901 was 984,000, in 1907, 1,152,000, in 1910 only 1,052,000. The number of other cattle in 1901 was 1,523,000, in 1906, 1,834,000, and in 1910, only 1,514,000. The number of stock slaughtered, however, rose steadily from 610,000 in 1901, to 817,000 in 1910. In sheep and lambs the story is one of steady decline from 1901 to 1910 in both the number of those on hand and of those slaughtered. In swine the number on hand rose from 1,491,000 in 1901 to 2,049,000 in 1907, and fell to 1,561,000 in 1910, while the number slaughtered, rose from 1,973,000 in 1901 to 2,267,000 in 1905, and fell to 1,844,000 in 1910. In poultry of all classes there has been a satisfactory increase in the number on hand and in the number annually killed. It will be seen from these figures, which are mainly taken from reports of the Agricultural Department of the Province of Ontario, and do not agree very closely with those of the Census Department at Ottawa, that we are meeting a greatly increased demand by decreasing the stock on hand, and such a state of things cannot, of course, continue long. Many quite natural causes have led to this result, and others will tend to remedy it to some extent in the near future. Hay being scarce, high prices prevailing for coarse grains, and the highest prices ever known for cattle, the farmer has in many cases sold both cattle and coarse grains, instead of feeding his stock as usual. But food crops are now more plentiful, and we may look for an increase in the stock of animals on hand.

Manitoba, Saskatchewan and Alberta.

Considerable disappointment, as we all know, accompanies the record of what is nevertheless another year of progress in the prairie provinces. The wheat, oats and flax reaped in the previous year were the highest in grade, and the whole crop was the largest and produced the largest sum in money ever known. Under such conditions the acreage for 1910 was naturally increased, not merely by older farmers, but by new settlers preparing their first crops. With an early spring everything promised well, but because of many adverse conditions a smaller and less highly graded crop was the result. Our estimates in August were:—

	Bushels.
Wheat	88,000,000
Oats	90,000,000
Barley	17,000,000
Flax	1,000,000

Other estimates are as high as 104,000,000 bushels for wheat and 128,000,000 for oats, but we do not expect either wheat or oats to reach 100,000,000 bushels. About 60 per cent. of the wheat is fit for milling, and oats and barley grade badly. The flax crop was larger than in 1909 and the price during 1910 has been as high as \$2.54 per bushel, and is still most unusually high, so that the crop is much more important than might be supposed. The money result from the crops of the three prairie provinces, as estimated by conservative Western opinion, will be about \$20,000,000 less than for 1909. The estimate of the Census Department, which includes all field crops, is less favorable. The total field crops for the three provinces for 1910 are valued at \$155,926,-

000, as compared with \$192,839,000 for 1909, a less amount by about \$37,000,000. Much of the shrinkage in value is due to the decline in price.

The smaller yield of the crops of these provinces is due to unfavorable weather in three districts, Southern Alberta, Southern Manitoba, and South-Western Saskatchewan. In the northern districts and in some southern parts results were most excellent. In the districts where results were generally unfavorable, however, isolated cases stand out clearly, showing splendid results obtained, despite the weather, simply by scientific farming. Agricultural conditions at the moment in Southern Manitoba and parts of South-Western Saskatchewan are unsatisfactory because of lack of moisture, while in Southern Alberta, because of plentiful moisture during the last few months, the prospects are as good as could be desired. For some years the necessity of more advanced methods in such older parts of Southern Manitoba has been painfully evident. May we now hope that the Government of Manitoba as well as the farmers will forthwith do the quite obvious and not difficult things necessary to redeem and maintain the reputation of this part of Canada as a grain producing country. Undoubtedly the crop is largely reduced every year by the prevalence of weeds, and it is clear that the Provincial Government cannot take too much trouble to remove this evil as far as possible. Enough has been done by individual cases of good farming to show how much larger the profits of agriculture in the West should be. The results of the present poor crop have been improved by the fact that mixed farming has been increasing—indeed, that is one direction in which Southern Manitoba is already working out the reform made necessary by the impoverishment of the land as a result of repeated grain crops.

There is no question of more importance to Western development than that of improving the breeding of live stock and of increasing their numbers. We are witnessing the gradual extinction of the rancher and the gradual establishment of a great grazing and feeding industry. It is naturally difficult by the increase due to the slower methods of the latter to make up for the losses consequent on the passing of the rancher, but the outlook as a whole is promising. The Live Stock Exhibition at Winnipeg in 1910 exceeded all records in the number of high-grade animals shown, and these were of such excellence that little further improvement can be looked for, some classes having been the finest ever shown in America. The progressive Western farmer is demonstrating to his fellows that if each of them will, as soon as he can afford it, raise a few head of high-grade stock, the disappearance of the rancher will redound to their gain, and the problem of maintaining a sufficient supply of animals will be solved. As matters now stand, stocks are not as large as they should be, nor are they increasing as fast as they should. Statistics do not go far enough back in Saskatchewan and Alberta to be of much service, but in Manitoba horses have increased in numbers only about 50 per cent. in ten years, cattle a trifle more than 50 per cent., sheep have lessened in number, swine have increased about 100 per cent., and poultry about 65 to 70 per cent. Such statistics as are available show that stocks on hand for the three provinces are about 870,000 horses, 2,300,000 cattle, 345,000 sheep, and 608,000 swine. Figures for poultry seem unreliable, but apparently there are not as yet half as many as in Ontario. One has only to look at the map and consider the small part of Ontario that is farmed, and to compare it with the West, in order to see how very much must be done before it can be made impossible for the Vice-President of the C. P. R. to reproach Manitoba with the importation of 12,000,000 eggs in one year over that railway alone, and to say further that the poultry and cream for their dining cars must be obtained partly in the United States.

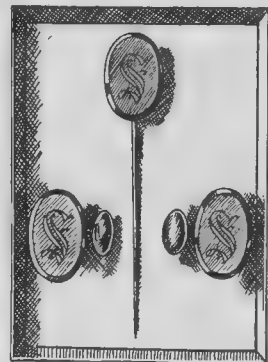
The storage capacity of terminal and inland elevators has increased from 63,190,000 bushels in 1909 to 77,901,000 bushels in 1910.

The railways are again to be congrat-

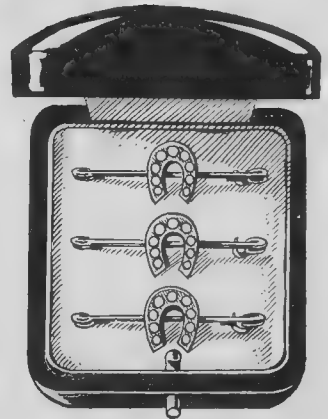
ulated on the manner in which they handled the crop. It is estimated that by the close of navigation 60,000,000 bushels had reached the head of the lakes. Terminal facilities for handling the crop have still further improved, and through the Lake Shippers' Clearance Association vessels can be loaded and despatched with much greater rapidity than heretofore. There has been the usual large increase in the mileage of railways, with the prospect of a still greater increase in 1911. In addition to Winnipeg, there are now many important railway centres, such as Brandon, Regina, Moosejaw, Weyburn, Saskatoon, Prince Albert, Yorkton, North Battleford, Edmonton, Calgary and Lethbridge.

One of the most interesting things in the settlement of Canada is the work of the superintendent of the irrigation schemes of the Canadian Pacific Railway. The policy of providing "ready-made farms" is succeeding admirably, and the dryness of the past season has drawn attention to the value of irrigation in Southern Alberta. Sales of land in the irrigation area have been very large during the last three years, and have lately averaged a million dollars a month. The railway company naturally favors sales which result in immediate occupation. Their plans have succeeded so well that an appropriation of \$8,000,000 is said to have been voted by the Railway Board in order to carry the irrigation system further east.

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The Removal of Wire.

Sometimes it is desired to erect a temporary fence about a calf pasture or other field that will be needed for some other purpose a few months hence. Possibly it is desired to stretch a few wires about a summer fallow, in order

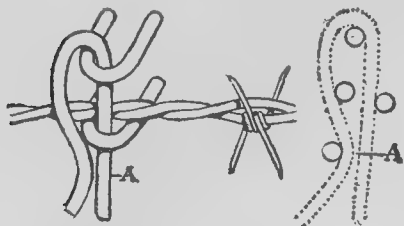


Figure 1

Figure 2

to use the field as a cattle pasture. With this idea in mind we present herewith a simple method of putting up wire so that it can be removed.

Two staples are driven into the post about an inch apart, one above and one below the wire, and both parallel with it. The wire is then held in place by a pin passed through the staples outside it, as in Fig. 1. The pins are easily made out of a single fencing wire, by bending them round four spikes driven into a piece of hardwood, as represented by the circles in Fig. 2, using a long piece of wire, and cutting off each pin, when shaped, with a cold chisel. The pins should be made with only a narrow space between the arms at A, so that they cannot be forced out by cattle rubbing or like causes, though they are easily knocked in with a hammer and withdrawn with a pair of pincers.

Selecting Seed Wheat.

According to a Kansas circular, the popular idea that large kernels of wheat germinate better than small ones is a mistake. The germinating power is, rather, dependent on the density of the kernels. The selection of dense kernels, in the experiments reported, was made by the use of a wind-blast grader. The kernels were blown through a long tin tube into boxes. The densest—that is, those heaviest in proportion to their size—fell into the box nearest the tube, and were graded as No. 1; those in the sixth box, farthest away from the tube, were graded No. 6. When planted, kernels of No. 1 germinated an average per cent. of 99.19, while those of No. 6 germinated an average of only 53.95. Between these extremes, the descent in germinating power

of the kernels in the other boxes was remarkably regular, according to distance from the tube.

Here is another hint for the observant wheat-grower, bent on increasing the product of his land per acre. What he wants is a wheat with kernels not only large and plump, but also dense. The large kernels, when separated from the small ones by the use of the fanning mill, will very likely count a large proportion which are equally dense with the smaller ones. If these kernels, possessing both size and density, shall be separated from those which are large but light, it would seem that they will meet every requirement for the most perfect seed, in any variety of wheat.

There is sure to be a keen demand this spring for good seed oats.

THE WINNIPEG TELEGRAM'S GREAT SHETLAND PONY CONTEST

Three Ponies This Time. Twenty-one Other Prizes.

Commission of 10 per cent on all Collections. Mammoth Rewards for First Twenty-Four.

One Dollar of Every Ten is Your Own

In addition to awarding twenty-four grand prizes in The Telegram's Second Shetland Pony Contest a commission of 10 Per Cent. will be paid every Contestant on the money collected for subscriptions to The Telegram. Candidates are allowed to deduct this commission and on remitting the balance subscribers will be credited with the full amount. Aside from the grand prizes contestants can make big money in commissions, for the discount allowed candidates in this contest is double that usually paid.

FIRST PRIZE



"GENERAL SHAFTER," BUGGY AND HARNESS.

How to be a Candidate

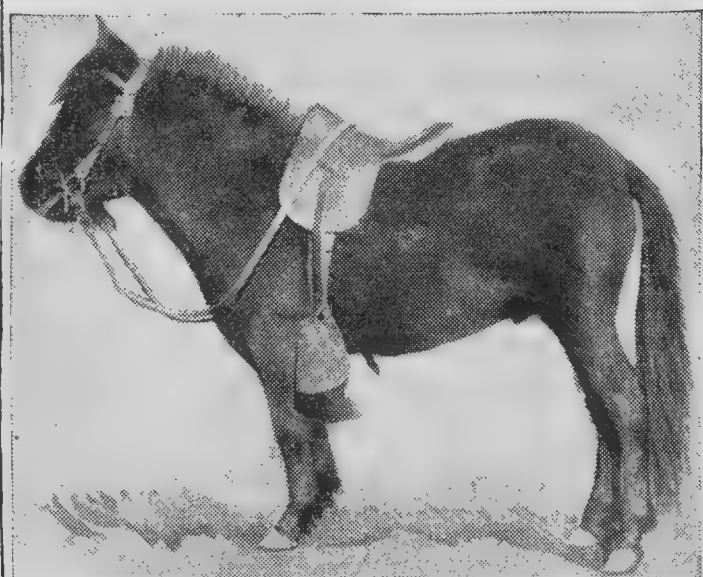
To be a registered candidate in The Telegram Shetland Pony Competition, all that is necessary is for you to remit One Dollar for a year's subscription to the Farmers' Weekly Telegram, or One Dollar for The Daily Telegram. If the remittance is for any of the editions to The Daily Telegram credit will be given according to the rates announced elsewhere on this page. Any Boy or Girl in Western Canada is eligible who complies with these conditions. For the first dollar of your first remittance 5,000 votes will be awarded, but after that votes will be issued according to the schedule.

THE PONIES

GENERAL SHAFTER—the Shetland Pony that heads the list of prizes, is the best Shetland Pony in Canada to-day. When the General was nine months old he sold for \$300.00 and has never been beaten in a show ring since that time. Two years ago, at the Winnipeg Exhibition a prominent horse judge said, when awarding him a prize, he is as good a pony as there is anywhere. That is a big compliment and the judge was conscientious in his statement. "General Shafter" is five years old and weighs 300 pounds. He is of the circus pony type, being beautifully marked in black and white. He stands 38 inches high without a shoe and will never grow any more, for he is now fully developed. The winner of this pony can enter him in any Shetland Pony trotting race in Canada and win in a walk. For his wonderful speed he goes high with action like a Hackney. He is perfectly broken to both ride and drive and has excellent manners. Any little girl can handle him with safety, for he is a great student of pony etiquette and never fails to obey his master. Space is not at the disposal of the Pony Contest Editor to adequately describe "General Shafter" in the initial announcement of this great Pony Contest, for it would take pages to do him justice. Later in the contest his complete history will be given. With General Shafter goes a new Pony Carriage and a black set of pony harness. Both the buggy and harness have been specially manufactured for the General, and whoever takes the first drive with General Shafter and his handsome outfit will be in a class distinctly by himself.

ADMIRAL—"Admiral" the pony which will be awarded to the second highest candidate in this contest, is an exceptionally high class pony. He is standard bred and with him go his registration papers. With "Admiral" goes a brand new saddle and bridle and as he is well broke to ride, the winner of this pony will be the owner of an enviable prize. This pony is also well broke to drive and whoever gets him will no doubt be pleased to buy a buggy for him. "Admiral" will be three years old next spring and weighs 250 pounds. He is a very attractive little fellow and like most members of his tribe very intelligent. He is coal black with heavy mane and tail and if treated kindly and given good care will win a prize at any show.

SECOND PRIZE



"ADMIRAL," SADDLE AND BRIDLE.

DONDER—"Donder" the third pony was christened the "Wonder" after his birth. This pony is only six months old and is just twenty-five inches high. Like "Admiral" he is coal black and he is a full brother of "Corporal" the pony The Telegram presented to John Pollock of Moosomin in the last competition. A good strong boy could pick "Donder" up and walk away with him under his arm. But he will not always be small, and although he now resembles a small brown bear he has all the points of a good pony and with kindness and care will develop into a great Shetland. With "Donder" goes only the halter. His winner will have an interesting time training him next summer and with youth in his favor can be taught to do most anything.

Twenty-One Grand Prizes Besides Ponies

The twenty-one grand prizes that follow the three Shetland Ponies are as named below and will be awarded as listed. These prizes all denote quality in their class and have been specially selected for The Telegram's subscription competition. Contestants who do not succeed in winning one of the three Shetland Ponies will find the subordinate rewards magnificent prizes and well worth trying hard to win.

DIAMOND RINGS
PHONOGRAPH
KODAK
CAMERA
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(Hammerless)
GRAMOPHONE
WRITING DESK
BOOK CASE
GOLD WATCH AND
CHAIN (Ladies' or Gentlemen's)

GOLD LOCKET
FIELD GLASSES
TRAVELLING BAG
(Genuine Leather)
TOILET SET
SUIT CASE
(Genuine Leather)
VIOLIN AND CASE
MANTLE CLOCK
AUTO HARP
SET OF HOUSE SCALES
GOLD RING
CHINA TEA SET

THIRD PRIZE



"DONDER," THE WONDER.

Contest Closes March 1st. Write Pony Contest Editor, care of Telegram, Winnipeg, for particulars.

Our Common Winter Birds.

By Norman Criddle, Treesbank, Man.

The winter climate of Manitoba is by no means a mild one, though it is far from being as severe as some individuals would have us believe, and the bright dry atmosphere goes far towards compensating for the discomfort of a cold spell or two and an occasional blizzard, which, after all, are usually few and far between.

From a naturalist's point of view, we can compare very favorably with other countries of northern latitudes, and the individual who wishes to study nature during the winter months can find lots to do. The botanist will be able to note the different trees and shrubs and study many fungi, lichens and mosses. In zoology there is also much of interest. Many insects lie hidden; there are also nearly forty mammals in an active state and more than that number of birds. It is of these latter that I am about to write in the hope that the information may be of interest, as well as of practical value, to the readers of this journal.

Of the 44 birds inhabiting Manitoba in winter time, about 20 are fairly numerous, 16 quite common, and three usually abundant. It is seldom, however, that two winters are alike, and likewise birds that may be very plentiful one winter will be rare another. This is especially so of those species that leave us in summer time to breed farther north.

In the following pages many of the rarer birds are left out, as to include them all would necessitate an undue lengthening of this article.

Ruffed Grouse.

There are two common forms of Ruffed Grouse in Manitoba; Canada Ruffed Grouse, with a decidedly brown tint, especially on its tail, which usually though not always, inhabits spruce woods, and the Gray Ruffed Grouse, with a prominence of gray, found commonly in poplar woods and bluffs.

The destruction of our wooded country is gradually limiting the range of these birds. They also suffer much from sportsmen, being very easily shot on account of trusting to concealment to escape detection, a device that answers

very well with their natural enemies, but, unfortunately, leaves them open to the devices of mankind.

It is interesting to know that many farmers show much forbearance where these birds are concerned, and I know of several places where they are allowed to roam unharmed throughout the year. They may be easily enticed to feed close at hand if some grain is placed for them in a convenient situation, and they soon become very tame.

Square-tailed Grouse and Prairie Chicken.

"Square-tail" is becoming a popular name of the Pennated Grouse, and as it is a useful designation for separating it from the Sharp-tailed Grouse, or Prairie Chicken, as it is more commonly called, it seems wise to endeavor to bring the name into common use, especially as this bird is also called Prairie Chicken in the South.

Both birds are found the year round, the Square-tail inhabiting the open country and the Sharp-tail open woodlands. Some of the former move farther south in winter time, while the latter congregate in the hills, where they live upon ground cedar berries very largely, though many remain and become very tame when allowed to feed near the barnyard.

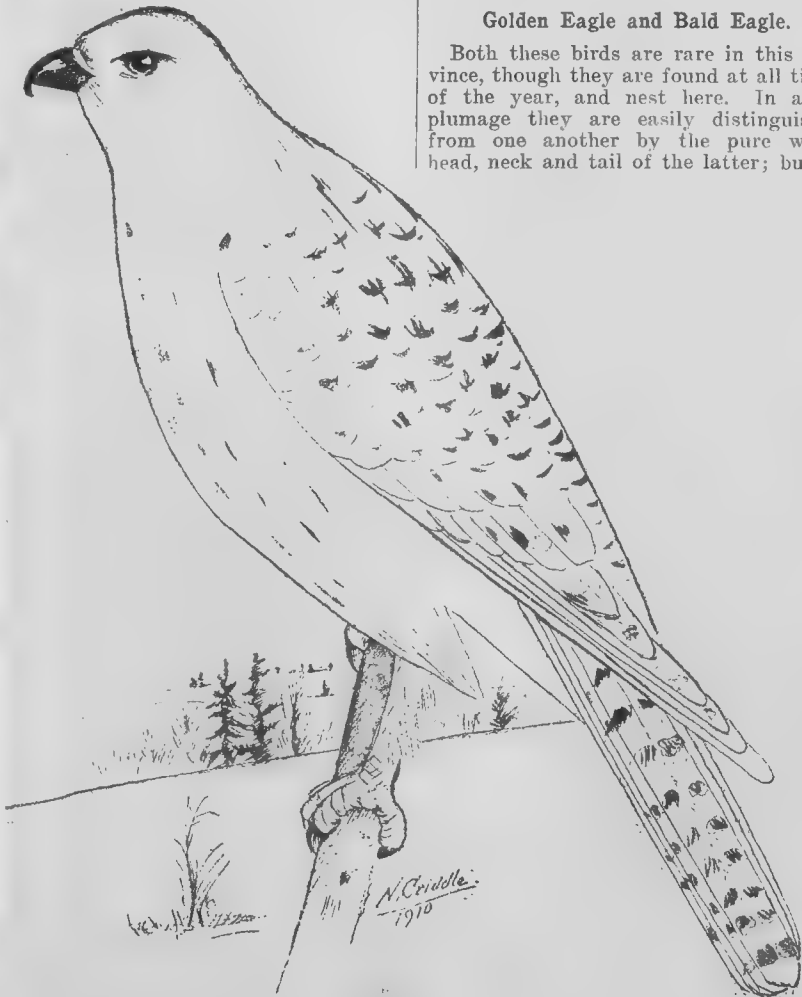
Goshawk.

I have already described this bird's habits in a previous article. It is found in two conditions of plumage—slaty blue (in this phase it is often called Blue Hawk) and a dull brownish gray. Both types are more or less barred with black and brown, more finely beneath.

It is perhaps well to reiterate that this is the most injurious hawk we have. It lives chiefly upon grouse and rabbits and is largely instrumental in retarding the increase of Ruffed Grouse, though poultry, wild ducks, and even geese are attacked. It may be recognized, apart from color, by its short wings and long tail, and also by its quick, straight flight, flapping with beats as quick as a crow, with occasional intervals of sailing. No one can do wrong in shooting these birds on sight.

Golden Eagle and Bald Eagle.

Both these birds are rare in this province, though they are found at all times of the year, and nest here. In adult plumage they are easily distinguished from one another by the pure white head, neck and tail of the latter; but in



White Gyrfalcon.

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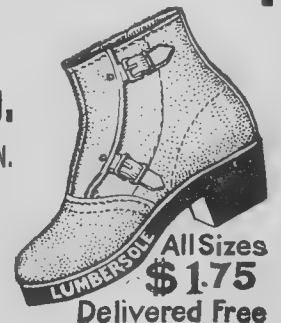
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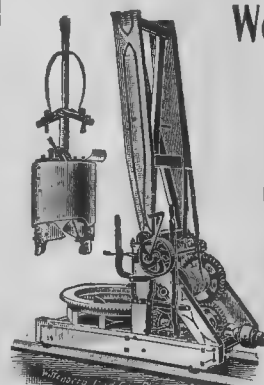
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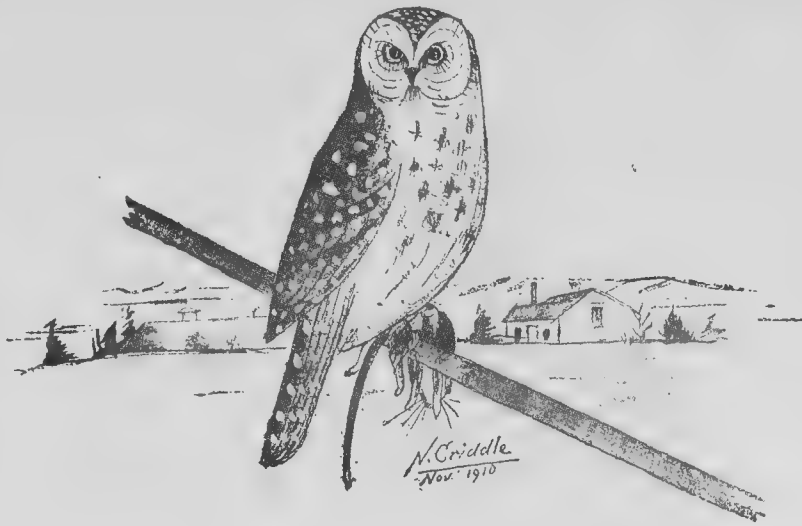
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Richardson's Owl.

young phases they are much alike, though close inspection will show that the Golden Eagle is feathered to its toes while the Bald Eagle is not.

The food of eagles consists, in summer time, of gophers, rabbits and other small mammals, as well as game birds, sheep, dogs, pigs, etc., and there are a few stories of their having attacked children, or even men, though in these latter cases, like the wolf stories, they lack confirmation. Bald eagles are also experts at catching fish, but, taking all in all, both birds do decidedly more good than harm, as they are largely instrumental in keeping down rabbits, and, therefore, are well worthy of preservation.

Gyrfalcons.

There are three kinds of these birds found in this province, all usually rare. The White Gyrfalcon, which is the most common, resembles a White Owl in color but may be known at once by its sharp pointed wings and hawk-like shape. It is, in fact, closely related to the Duck Hawk and looks like a large edition of that bird in white plumage. The other two varieties are dark grayish black and brown above and light beneath. All measure from 21 to 25 inches in length.

It is fortunate that these hawks are rare, as they are among the most persistent enemies of grouse known. Luckily, too, they go farther north in summer time.

Richardson's Owl.

This is the small owl one usually sees at close range in woods during winter.

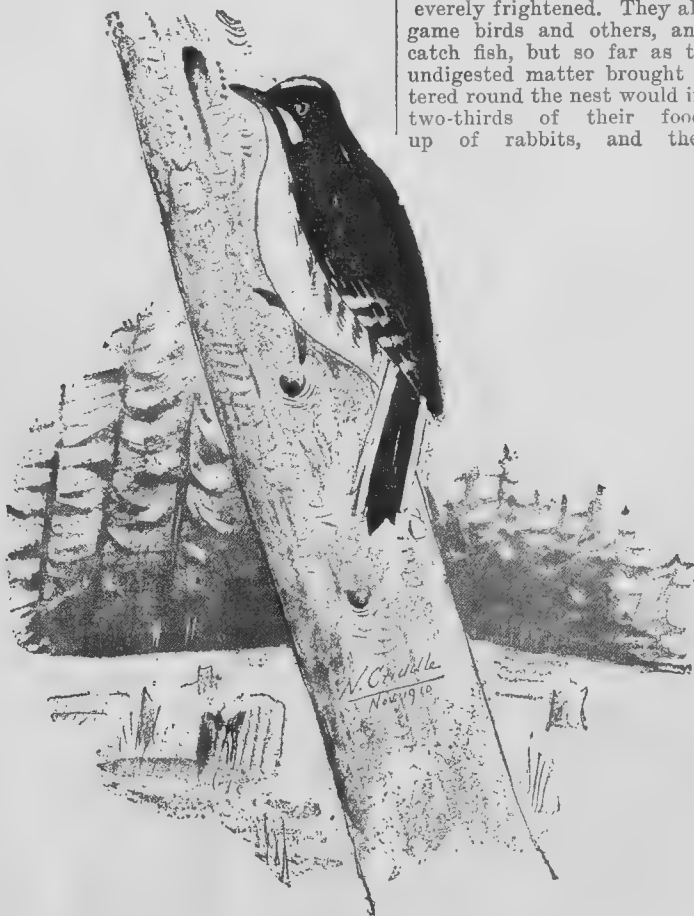
They often appear in open barns, sheds, etc., and are then very commonly thought to be injured, or weak from cold and lack of food, especially as they allow a very close approach before taking wing. In reality they find the outbuildings much more congenial hunting grounds than the woods and more comfortable to sleep in during the day. Try to feed them with pieces of meat and you will find it of no avail, but let a mouse appear and it very soon becomes a palatable breakfast. These owls are, in fact, regular mouse hunters, and should never be harmed.

Richardson's Owl is grayish brown above with many white spots; beneath it is dull white with a few dark markings. It closely resembles the Saw-whet Owl, also found here in winter, but this latter has the forehead streaked with white instead of spotted. It is also brighter brown above. This latter is quite a rare bird in these parts.

Western Horned Owl.

This is our commonest owl in woodlands during the winter months. It is the one generally heard hooting, "Whoohoo; Hoo-ter-hoo." It is the largest common owl we have, and differs from the Arctic Horned Owl by its much darker color and browner tints below.

This owl lives chiefly upon bush rabbits, and as these mammals do much harm by destroying young trees, it is, therefore, one of our allies. Occasionally, when poultry are housed in open buildings, or not at all, these owls become a serious menace and will continue to visit the roosts until either killed or everely frightened. They also take some game birds and others, and sometimes catch fish, but so far as the pellets of undigested matter brought up and scattered round the nest would indicate, fully two-thirds of their food is made up of rabbits, and the remainder



Arctic Three-Toed Woodpecker.

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Evening Grosbeak.

very largely of mice, with a few birds and other odds and ends.

These birds nest in trees early in March.

Snowy Owl.

This is another useful bird that should have every protection. There seems to be a craze, however, to kill them whenever chance offers—why I don't know. Unfortunately, this lust for slaughter is not confined to destruction of the Snowy Owl. All kinds of owls suffer, as well as all hawks, irrespective of their usefulness. It would be just as reasonable to kill off all cats, in fact much more so, or destroy all pigs, because some few acquire a habit of eating poultry. Let us recognize the fact once for all that there is no honor or use gained by killing either a hawk or owl,—excepting some few species which can easily be told; or, perchance, an occasional thief among the others. In destroying them indiscriminately we are actually helping to breed and foster dangerous pests.

Woodpeckers.

We have five winter woodpeckers, the Northern Hairy, Downy, Arctic Three-toed, American Three-toed and Pileated. The first three are fairly common, while the two latter are rare. The Northern Hairy Woodpecker is that large, black and white species with spotted wings and a red crown patch. The Downy is, practically speaking, a small edition of the Hairy. The two three-toed Wood-

peckers are black above, excepting that the American Three-toe has some white bars across the back, which at once separates the two.

All our winter woodpeckers live upon wood boring insects, such as the larvae (grubs) of wood beetles, and ants, so that they are of much value in helping to preserve our trees. It should be borne in mind that these birds drill holes only in trees where there is a noxious insect present.

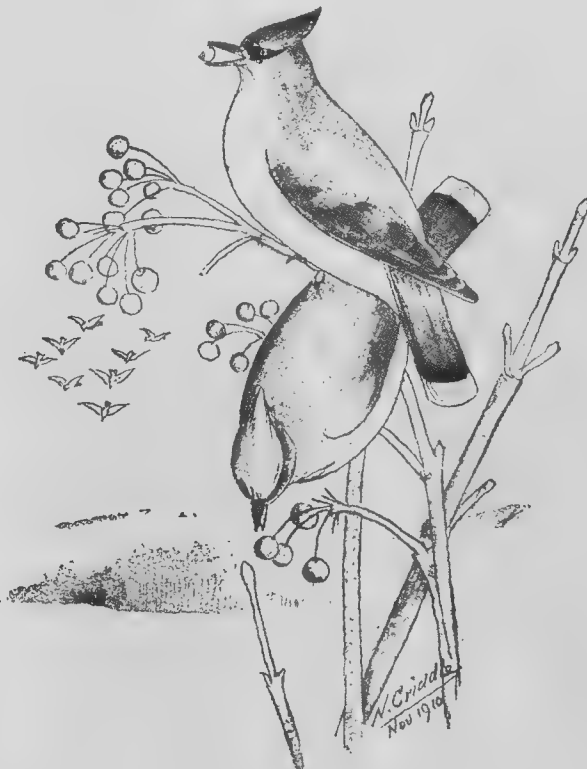
American Magpie.

Usually a rare bird, but was more common than usual this autumn. It is bluish black above with a tail of a greenish tint. There is a large white patch above its wings, and it measures twenty inches in length, so is easily told from other birds. It is almost an omnivorous feeder, though apparently prefers animal matter.

Blue Jay.

This, with the Canada Jay, is found in all the wooded portions of the province, though the latter breeds in coniferous forests and only wanders forth in search of food in winter time. Both remain with us throughout the year.

Like the Magpie, their food habits consist of eating nearly everything, and they also store edibles for future use. In the summer time they are known at times to rob other birds' nests, but, according to the best authorities we have, the Blue Jay, at least, does far more



Bohemian Waxwing.

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good than harm, while the evidence for or against Canada Jays is far from conclusive either way, though they are great thieves and cause much trouble to trappers owing to their persistency in robbing traps. But as fur bearing animals are being exterminated quite fast enough, the temporary loss occasioned will probably be a gain, rather than a loss, in the long run.

Northern Raven.

Resembles a crow, but is much larger. It also flies more heavily, and often sails. Ravens are only accidental visitors here. Their food habits are not very well known, though they are great scavengers, and probably also eat mice, frogs and any other animal matter they can secure, as well as some vegetable substance.

Evening Grosbeak.

The male of this species is a dull yellowish green above with a large patch of white on the upper portion of its wings; the belly and a streak above the eye is yellow; while the tail and primaries are black. The females and young are much grayer.

Evening Grosbeaks wander about during the winter months in small flocks, searching for fruit and seeds. They are very fond of the seeds of ash and maple, and, consequently, are usually much commoner in the vicinity of those trees. They are not particularly useful, but on the other hand do little harm, and their beauty alone should be sufficient to ensure their preservation.

Pine Grosbeak.

This bird is found throughout the wooded districts in winter time. The males are sometimes mistaken for robins, owing to their bright, rosy color, and similar size, though in reality there is little real resemblance. The females are much duller and the young vary much in color, the red often being replaced by light brown or yellow.

Pine Grosbeaks live chiefly upon berries

we consider the millions of seeds each tree contains, the injury seems insignificant.

Redpoll.

Redpolls are usually our commonest winter birds. They are very active, and their notes at once proclaim their relationship to the Siskins and Finches.

There are no other birds in these parts that consume such an enormous quantity of weed seeds. They seem to be always feeding, and wherever there is a patch

er without substantial shelter and means of procuring food other than that afforded by nature. Therefore, if entrance to all buildings is prevented these birds will either be obliged to seek shelter elsewhere or perish; and if they are banished from the farm in winter time they are less likely to return during the summer months.

Snow-Bunting or Snowflake.

This is another bird of much economic value. Its natural habitat in winter is the more open country, but on the approach of storms it seeks shelter in the wooded country and about farm buildings.

While with us the food of Snow-Buntings is made up entirely of seeds, much of which they gather from grasses and other wild plants sticking above the snow. In early winter and again in spring they spend much time on cultivated fields picking up weed seeds, and it is then that they are so useful.

Bohemian Waxwing.

These birds look like large Cedar Birds, but are somewhat darker. They are separated from all our other winter birds by their prominent crests. Waxwings nearly always fly in flocks, and

are found most frequently where cranberries (viburnum) are plentiful, upon which fruit they largely subsist. They are of no particular economic value, unless the spread of cranberry seeds can be claimed as such, but as they do no harm to speak of they should be preserved in company with all other harmless creatures.

Northern Shrike.

Shrikes, owing to their habit of sticking their prey upon sharp points, such as thorns or barbed wire, are often called butcher birds. It is not at all uncommon to find all manner of animal matter hung up in this way—birds, mice, grasshoppers and other insects.

We have two kinds of Shrike in Manitoba, very similar in color and size. The White-rumped Shrike, however, is only with us in the summer time. It is a bird of much value, living largely upon grasshoppers and many other noxious insects, while the Northern Shrike takes the other's place in winter, though few remain with us during the coldest months. This bird, though it kills many mice, is of somewhat doubtful economic value, owing to its persistent persecution of small birds, such as Tree Sparrows,



Northern Shrike.

ries and are largely instrumental in spreading the seeds of many shrubs or small trees about the country.

American and White-Winged Crossbills.

Crossbills are told by their curved bills, which cross at the top. The males of the American Crossbills are red with a grayish or yellowish tint and no white on wings. The females and young are much duller with the under parts yellow.

The White-Winged Crossbills are bright pink with the middle of back blackish. They are at once recognized by two plainly marked white bars on each wing. Crossbills are inhabitants of the coniferous woods and their bills are specially adapted for prying apart the cones to enable the birds to eat the seeds upon which they largely subsist. On this account they do some harm, but when

of weeds, lamb's-quarters, redroot or tumble weed, there you may be pretty confident to find a congregation of Redpolls busily engaged.

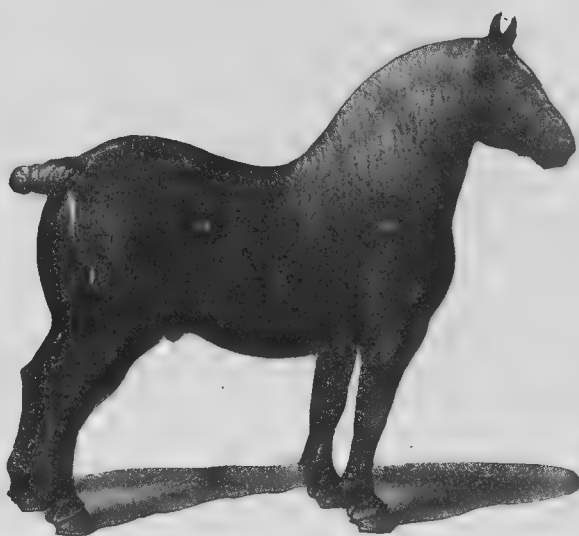
There are three kinds found in Manitoba, much alike, though the last two are rare. All are of much value to the farmer, as destroyers of noxious weed seeds.

House or English Sparrows.

House Sparrows are a nuisance and we may congratulate ourselves that we have no natives like them. True, they do some good in summer time, by destroying injurious insects, but this does not compensate for the harm done, and as they are noisy, clamorous and pugnacious, it seems wise to endeavor to keep them within reasonable bounds.

In winter time House Sparrows are unable to live through the coldest weath-

W. S. HENDERSON & SONS



Importers and Breeders of Percheron and Belgian Stallions

Have just received the fifth importation.

We have two-year-olds weighing 1840 pounds, girth eight feet nine inches, with the best of bone and feet.

We have animals that cannot be duplicated in Canada. In Belgians we have tonners, big boys, good horses.

We have the goods, come and see them. Yours for stallions cheaper than the other fellows'.

40 head to chose from.

W. S. HENDERSON & SONS, Carberry, Man.



They Wear Well, Fit Well
—Look Well—
AND COST LITTLE

They fulfill the last desire of the Stock Man, the Engine Man, the Odd-Job Man—
EVERY man who follows a business in which it is necessary to protect his garments. The

‘King of the Road’
Overalls and Shirts

“The Better Kind”

are different from any garments of the kind in the stores. They are made of the very best material by skilled and well-paid labor. They are got up on the most generous plan without skimping at any point. They are the BETTER KIND that you should insist on having, and if any attempt is made to fool you with “something just as good,” write us direct,

R. J. Whitla & Co. Ltd.
WINNIPEG

Juncoes, Red polls and Chickadees. Nor does it take amiss a House Sparrow, and here again it is useful. Personally, though, I am loth to condemn any living creature without good reason. I feel that an increase of these birds would not be advantageous, though to exterminate them would be a calamity.

Long-tailed Chickadee.

To my mind Chickadees are one of our most interesting wood birds. Their small size, activity, and fearlessness, together with a wonderful vitality, which enables them to withstand the coldest weather, and, to finish up, the fact that practically their entire food consists of minute insects, spiders, etc., or their eggs, marks them at once as something out of the common. When we consider that these birds rove from tree to tree, and bluff to bluff, during the entire day, and during all their wandering never cease to search for food, we may form some idea of the enormous quantity of insect matter they consume in a day. What must it be in a year? They are, as I said before, fearless birds, and with a little patience can soon be taught to take food from the hands.

In conclusion I would suggest all persons interested in bird life placing a good sized piece of suet, or fat, in a convenient place for observation, and also some weed seeds. These, if well situated, will attract many of the birds discussed above and prove a never failing source of delight to the observers.

AMONG THE BREEDERS.

Our Cover Illustration.

The beautiful illustration on our front cover is made from a photo kindly sent us by John H. Stout, The Oaks, Westbourne, Man., and shows some of his registered Percheron mares drinking at the river on the home farm.

Lakewood Percheron Sale.

On another page is announced the blue ribbon sale of Percherons, stallions and mares, at Sioux City, Ia., on Feb. 14 and 15 by H. G. McMillan & Sons, of Rock Rapids, Ia. Sioux City is easily reached from Winnipeg, through Minneapolis and St. Paul, or from Brandon over the Great Northern, or Moose Jaw and points east and west over the Soo line. McMillans have held many successful sales in Sioux City at public auction and have announced them regularly through the Nor'-West Farmer for over a year now. A number of very satisfactory buys have been made by Canadian horsemen at these sales and the listings of the coming event are such as will no doubt attract more than usual attention from this direction. Few hor-

WINNERS OF DECEMBER PRIZES.

The prizes offered by The Nor'-West Farmer to those scoring the most points during the month of December in our big Subscription Contest have been won as follows:—

- 1.—E. H. Crimp, 260 Good St., Winnipeg. \$10.00
- 2.—S. W. Batho, Minnedosa. 6.00
- 3.—Edw. Strang, Calgary. 4.00

ses have made greater records than the Lakewood stud horse Calypso, either as a breeder or in the show ring. The great breeding mare Iolanthe took the championship for the second time at this year's International Stock Show. Few Percheron breeders have been more successful than this firm. Mr. H. G. McMillan, the senior member of the firm, is president of the Percheron Society of America, which is perhaps the strongest live stock organization on the American continent to-day. Catalogs of animals included in this sale may be had on application. See adv. in this issue.

Uppers Sell Percherons In Alberta.

W. E. & R. C. Upper, North Portal, Sask., the well known proprietors of Clear Water Stock Farm Percherons, write us that they have recently sold the imported two-year old Percheron stallion Inepte to Mr. H. O. Bessey, Gadsby, Alta. This horse is black and won third in a class of 18 at the Minnesota State Fair; also third at the South Dakota State Fair. Mr. Bessey is also buying two registered mares from Messrs. Upper with the intention of going in for the breeding of pure bred Percherons.

Good Boost for the Clydesdales.

In a recent letter from Alex. Galbraith & Son, De Kalb, Ill., in which they refer to their latest importation of Clydesdales, reference is also made to the winnings of the Clydesdale geldings at the Chicago International Stock Show as follows: "You doubtless noticed the splendid victory achieved by the Morris and the Union Stock Yards Clydesdale geldings at the recent International Show. Over eighty per cent. of all the leading prizes went to grade or pure bred Clydesdales, and yet this is but a repetition of what

has happened year after year at Chicago. It is surprising that such a limited number of our American farmers are at this time of day sufficiently critical judges properly to appreciate the outstanding merits of the Clydesdale breed. Everybody admits the superiority of the Clydesdale in soundness, limbs and action. That they are by far the strongest, the most enduring and the most skillfully bred draft horses in the world is equally true, although not perhaps so generally known. Time only is required to bring our American people to a realization of this indisputable fact."

W. C. Kidd Selling Many Horses.

The W. C. Kidd Horse Company, of Listowel, Ont., and Strome, Alta., writes us under date of January 11 as follows:—"We have had good luck in selling our horses, and are all sold out at Strome, but we had two carloads land at our Listowel stables, and have forwarded one carload to Strome, which will land there about January 15. This is one of the best carloads that we have ever sent—ton weights, with plenty of action and quality. Mr. Kidd's regular announcement appears on another page.

It is reported that one of the extensions that the C.P.R. is likely to undertake during 1911 is the enlargement and improvement of its Winnipeg stock yards. Notwithstanding any efforts that may be made to establish an independent one, it is believed that the C.P.R. will retain its own yard.

Mr. L. A. De Montbel, one of the junior members of the firm of A. Andre De Montbel & Sons, proprietors of the Green Meadow Stud Farm of Percherons at Ste. Rose du Lac, Man., has been engaged to address some agricultural society meetings during the first week of February in the French and Mennonite settlements in Southern Manitoba.

Smoking Pork.

A subscriber wants to know how a farmer can smoke pork without a smoke-house; also, what is the best to burn to make smoke.

It is, of course, impossible to smoke meat out in the open, because the smoke would spread out too much, and the meat would be little affected. There must be some sort of container, and a small building is the best. Perhaps in lieu of this a tent could be made to answer the purpose. It is most essential to have the walls tight, so that as little smoke as possible can escape, and this very slowly. A smoldering fire of green poplar, oak or elm will produce much smoke and give a pleasantly cured meat. No wood that produces a strong smelling smoke, such as pine or spruce, should be used. Some sort of room with fairly tight walls will have necessarily to be provided.

W. W. Shore, Regina, writes:—"Your Christmas number was greatly appreciated, a fitting climax to the preceding twenty-three numbers of 1910. May the excellent illustrations continue to prove one of the main features of the future issues."

Architects are now preparing plans for the Manitoba Agricultural College buildings, construction of which will be commenced early in the spring on the new site south of Winnipeg, at St. Vital. The proposed plans have been approved by the College faculty. A boys' dormitory to accommodate 350 students will be built, and a building for women large enough to accommodate 100. A dining hall to be used by both the young men and the young women will be provided.

F. W. Green, Sec. Sask. Grain Growers' Association, in speaking at a public meeting in Moose Jaw on the results of the recent farmers' delegation to Ottawa made a very significant statement, as follows: "I think we made a great mistake that we did not provide time and permit the manufacturers and boards of trade to show us all they could of the east, their institutions and industries." An invitation by the Manufacturers' Association to visit the factories at Montreal could not be accepted, neither was it possible for the delegation, as a body, to even go across the Ottawa river and visit the most interesting plants in Hull, Quebec. Mr. Green's further statement contains a thought that more people should appreciate: "You cannot hoodwink our men by letting them see real things. It is keeping the truth from us that is dangerous."



Herd of Aberdeen Angus Cattle owned by Jas. D. McGregor, Brandon, as exhibited at the International Live Stock Exposition, Chicago, December, 1910.



While our columns are always open for the discussion of any relevant subject, we do not necessarily endorse the opinions of all contributors. Correspondents will kindly write on one side of the sheet only and in each case give his name—not necessarily for publication, but as a guarantee of good faith. All correspondence will be subject to revision.

A Farmer on Telephone Rates.

Oliver King, Wawanesa, Man., writes:—"In your last issue some prominence is given to an article on 'Rural Telephone Rates' by the Chairman of the Manitoba Telephone Commission. The reason for Mr. Paterson's writing is not far to seek. He wishes to prepare the farmers for the extraordinary expenditure incurred by the Telephone Department this past season, and, incidentally, make statements that are anything but reasonable.

"Mr. Paterson states that when the Bell Company started in 1904 to extend their lines into the country at Portage la Prairie they charged a rate of \$30.00 per annum. Well, when this company came to Wawanesa they asked people to sign contracts for three years at a \$24.00 rate, and did not charge anything for connection. Now we are charged \$20.00 per annum; and last year (1910) the Telephone Department imposed an extra expense on the farmers for the posts on his farm from the road allowance to his house. Those whose premises are near the road get the advantage over those that live back in the centre of their farms by some \$30.00 to \$50.00. Is this right and fair in view of the 'political' promises made a few years ago? Of course it is not. It is nothing but a breach of good faith and an imposition.

"Then the people of the many small villages receive a rate that is not fair in comparison with the farmers' rate. The merchants here pay the same as we do, viz., \$20.00, while I am sure they use the 'phone from 5 to 20 times as often in a day. Then, too, residence 'phones are only \$15.00, and these cause more expense in operating (that is, calls) than the rural 'phones. Why the discrimination in rates?

"Mr. Paterson says, look at the expense of installing the rural lines. Well, I have seen some of it. It was no strange sight to see five or ten men doing one or two men's work. It took six men one half-day to put in three posts in a sandy loam soil, and three men put in two posts in two days in another place, and scores of similar records of work (!!) could be quoted. When spoken to, these men would say, this is a Government job! That is the excuse pretty often when public monies are exploited. Take the telephone directory and look. You will see rural lines of ten miles in length with an annual revenue of \$140.00 to \$180.00 for seven and nine 'phones respectively. Is that not a handsome return, and should pay for the expenditure and cost of service in a short time?

"No, Mr. Paterson, there is no reason why the telephone rates should be raised at all, rather the reverse. As for the argument that a larger number of subscribers increase the costs of the service per 'phone, that will not do at all.

"I will give Mr. Paterson this suggestion: Have all rural lines erected by contract, and see that good value is got for the price. Cut out the political heeler and those who want soft snaps. Make the men work for their wages, the same as any large corporation does, and there will be a large surplus every year at the present rates."

Among other bills being, and to be, brought into the Federal House at this session, is one fixing the legal weight of a barrel of potatoes at 160 pounds. Even the "murphies" are sometimes juggled with.

Geo. E. Foster on Tariff Reduction.

That there will be strong discussion on the tariff question during the present session of the Dominion Parliament seems very certain. In the meantime at least one of our politicians has declared himself in the open. In an article in the Canadian Century, of January 7th, Hon. Geo. E. Foster declares himself as utterly opposed to the proposals for tariff reduction put forward by the farmers while at Ottawa. Mr. Foster writes under the general heading "The Grain Growers' Demands." His complete article follows:—

"The Grain Growers' deputation has visited Ottawa and presented its case with great fulness to the Government and Parliament. It was large in numbers, excellently well organized, thoroughly disciplined, intelligent and business-like, and did its work with precision and skill.

"Its resolutions were tersely put, its speakers well chosen and clever, and they made their points with a clearness and closeness which may well have been envied by more practised orators. The deputation impressed one as sincere and very earnest, and, so far as outward appearances indicated, was entirely unanimous.

"Altogether it was a notable gathering, and easily ranks as the largest of the kind ever known at Ottawa. Few who witnessed it will soon forget the scene and its unique settings in the old historical House of Commons.

"And now that it has come, delivered its plea and dispersed again to the four corners of Canada, we have time to muse over the spirit, the matter and the merits of the great demonstration.

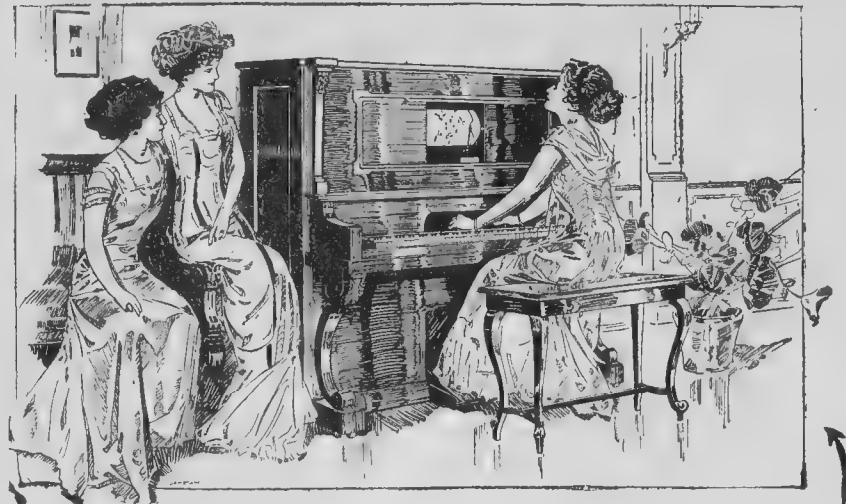
"What They Wanted.

"Outside of the Railway Act, Bank Act Amendments and Co-operative Society legislation asked for, none of which were at all startling, their demands were comprised in four propositions—few in number, it is true, but so far reaching that their full realization would involve little short of a revolution in principles and methods at present followed.

"1. The government was asked to institute and operate a national chilled meat industry, to find the money therefor, and conduct it either solely as a government business or on some co-operative plan, paying all expenses out of the proceeds and returning the profits to the sellers. Provision was asked to be made to pay off the first capital cost by setting aside a portion of the profits annually. This means that all the capital shall be first provided and all the risks run by the State, and that all the profits shall accrue to the producers of food animals. It means also that, if undertaken by the State, it must be State-wide in its operation and not confined to a section of this class of producers. The principle, once adopted and carried to its logical conclusion, must be extended to all classes of producers, and would, when fully embodied, socialize the entire economic system of the country. To confine it to one class, however important, would mean the taxation of all to provide a marketing mechanism for one, which is contrary to the Grain Growers' doctrine as respects tariff and transport.

"2. The government was asked to build and operate the Hudson Bay Railway—an extension of the principle of public ownership and operation which now obtains in the I.C.R. and the canals. In this the deputation had a strong case. More even than the Intercolonial is this route peculiarly a common highway for the national benefit, defeated in its purpose and futile in results unless it be built with all possible economy and operated at lowest cost and absolutely barred to private or corporate exploitation.

"But it would appear that the deputation, having gone so far, must go farther and insist upon a line of steamships, established and controlled by the Government, to connect the railway with the European markets. To ensure a correct basis for one-half the route and neglect to provide for similar safeguards on the other, would risk the deficiency and defeat the purpose of the whole project. This



Your Success Your Happiness

Will Largely Depend,

Will Entirely Depend

upon the tone of the mind. If it is tuned to concert pitch you will do things. If you are the victim of a "fit of the blues," you can't do anything, but there's nothing on earth will get you out of them like the notes of a line of music that you like. You say you cannot so much as blow a tin whistle, and yet there are melodies that move you to a pitch of sentiment or daring that language cannot express. If you will place a

Pianola Piano

in your home parlor, every one who comes under your roof will bless you. It will put a backbone into the habit and purpose of your life that neither men nor devils can influence except to aid you. There's not a tune in history the complete score of which it will not play with all the strength or delicacy of the finest orchestra you ever listened to. And without effort or two minutes' tuition you can do it all yourself, or any of the young folks can handle it without risk. We carry over 20,000 compositions to suit every taste or mood and this is constantly being reinforced with selections from the brightest and best of Modern music. Come and hear it when you attend the

Bonspiel

Make our Store your home while in Winnipeg. We will give you the richest musical feast the City can provide and no one will urge you to do business.

If you cannot see us during Bonspiel Week—write at once for our story of the Pianola which you can buy on the simplest and easiest monthly terms.

Mason & Risch Piano Co. Ltd.

356 Main Street, Winnipeg



A FINE HOME PRODUCT

Mrs. James Carson, Ebenezer, Sask., Shipping Turkeys to Laing Bros. of Winnipeg

involves a vast initial outlay by the State, and a continuing complex and expensive operative system also financed by the State.

"3. The Government was asked to provide, by purchase and construction, for terminal elevators, and to operate them by means of an independent commission. It was urged that, in order to obviate suspicion and ensure confidence, the grain grower must be assured that his product, paid for on its grade inspection at the elevator, is not only properly graded, but that the elevator shall fulfil its trust of cleansing, storing and delivering the grain true to grade and free from manipulation of any kind. On the absolute fidelity of the elevator to this trust depends the price to the grower, the quality to the buyer, and the reputation of Canadian grain in the ultimate market.

"There seems little doubt that the temptations and opportunities afforded the elevator companies for private gain at the expense of the grower and the millers are so great as to constitute a grievance of magnitude, and one which must be effectually remedied. Can this be done by supervision and control? If not, then how? It appears to be up to the Government to solve the problem. If it can be done only through State ownership and operation, here, if ever, is a justification for the exercise of such powers.

"But here again the cost of elevators on both oceans and at many ports and also on the lakes involves the pocket of every taxpayer in Canada. It is State aid that is invoked, and State aid for the profit and advantage of a class.

"If any doubt existed in the wording of the resolution it was wholly removed by the elaborate reasoning with which the speakers supported and enforced it, culminating in the dramatic and wildly applauded assertion of one of their advocates that "They had this day flung wide a flag which would not be furled until it had been planted on the ruins of protection."

"The Effect Upon Canada.

"Without disparaging for a moment the sincerity and conviction of the Grain Growers' Association, one may question whether they have taken into account other interests and other phases of development and the effect thereon if their tariff demands were complied with.

"The foreign trade of Canada runs over \$650,000,000, and its internal traffic is vastly greater. This has been gradually built up to its present dimensions on a certain fiscal basis, supported by 35 years of public sentiment and legislation. Vast systems of transport at immense cost have been developed to accommodate and extend this trade, into which pours the products of many great industries and occupations. Never were progress and expansion more gratifying throughout Canada than now, and never the promise brighter for still greater progress and expansion.

"How would the tariff proposals of the deputation, so definitely expressed, so insistently demanded and pressed for immediate adoption affect all this development? Is it certain that their adoption would prove a panacea even for all the ills complained of as attaching to the farmer's vocation? It is quite clear to the minds of the deputation what effect this sudden and pervasive change in our fiscal policy would have on all other interests and on the general development of our national ideal? These things must be made very clear before the demands of even so intelligent and strong a deputation can hope for a favorable verdict from the grand jury of the nation. And when such proposals are transplanted from the atmosphere of the club or association, where but one interest is uppermost and one view favored, to the forum of the whole country, the perspective changes and other interests crowd to the foreground.

"The Meaning of the Proposals.

"These three proposals present a programme, of great magnitude and far-reaching consequences. The first is fairly revolutionary, and all call for immense initial outlays by the State—that is, by the individuals of the State—in the shape of taxation, by which alone money can be provided. These proposals lay their advocates open to the question posed by themselves with great force

against the protective policy. They now are open to the question—By what right do you compel the artisan, the manufacturer, the fisherman, the miner, the market gardener, the fruit grower, the professional man and the multitudinous urban dweller and business man to put his hand in his pocket and furnish the capital and take the risks in operating a Government mechanism for purchasing, slaughtering and marketing the beeves, hogs and sheep of prosperous and often wealthy farmers? Or to undertake to buy, build, equip and run costly elevators to the end that grain growers should be provided with business checks on the progress of their product from the farm to the market?"

"It is clear that to apply to these propositions the positive and unrelenting reasoning applied by the grain growers to other industries would prove their confusion. All this serves to show how complex and gigantic is the task of building up a nation, how divergent and varied are the interests which are to be developed, and how necessary is the application of all around consideration and mutual 'give and take' to the problems that confront us. Academic theories and the deductions of cold logic must be dominated by the spirit of conciliation and sacrifice, and by an ever-present sense of the vital co-relation and wide comradeship of the great and varied interests of the country.

"In these three proposals one class—the grain growers—asks the State, i.e., all classes, to tax themselves to provide it with profitable business machinery. Well and good; but can it then logically deny aid by the State to the other great industries?

"The moment it demands State aid and co-operation its case against the manufacturing industries falls to the ground.

"But it is when we reach the final proposals of the deputation that the fine import of its mission is developed.

"What is asked? Reciprocal free trade with the United States in all fruit, fish, lumber, agricultural and animal products, in fuel and oils, in spraying materials, fertilizers, cement, agricultural implements, machinery, vehicles and parts thereof, and an immediate reduction of 50 per cent. of the general duty on imports from Britain, with the stipulation that even this lightened duty shall be entirely removed within ten years.

"The issue is the plain one of free trade with direct taxation for revenue, and a complete elimination of the principle of protection in every form. Give legislative effect to these tariff proposals to-morrow, and what would happen?

"Our established trade routes would be vitally affected. Freights would change as to points of origin and destination, and seek new channels of transit, to the detriment of the old. In proportion as the volume of traffic was enlarged north and south it would be diminished east and west. Canada would get the short haul, while the United States transport systems would benefit by the long haul. To the extent that Canadians bought and sold more in the United States and less in Transatlantic countries this would affect both our interior lines and our ocean routes. The tendency would be to attract to the United States steamship lines, their sea-ports and railways more and more of our trade to and from Europe.

"We have for more than thirty years been striving every nerve to develop Canadian trade routes, and have spent billions thereon. Shall we now suddenly, and with a light heart, put all these in jeopardy? Even now the Welland enlargement, the Georgian Bay Canal and the Hudson Bay route are being pressed forward, and will call for hundreds of millions more. To what end, if our trade is diverted to north and south lines?

"The next effect would be felt by the industries involved, and these would be practically all our industries. Free reciprocity with the United States in the commodities proposed, and a cut of 50 per cent. on imports from Great Britain, would vitally affect every cotton, woolen, coal, leather, wood and metal industry in Canada, and would shut up most of them. The cut in duties is not to be exercised with discrimination; it is to be arbitrary and horizontal and in-

stantaneous. No legislation was ever proposed on so inconsiderate and mechanical a basis.

It needs but a moment's reflection to visualize the resulting confusion, the crash of business enterprises, the depreciation and dislocation and loss of capital, the stoppage of industries, the non-employment of wage-earners, and the transfer of capital and labour to other countries. The sunken capital and idle labor would not go to the farms, and new capital would find no inducements.

"To pit Canadian industries, unprotected, against the competition of the world of protected nations could only have one result. Nor in free trade England could they sell their cottons in competition with Lancashire, nor their woollens against Yorkshire, nor their steel against Birmingham and Sheffield. They would go to the wall.

"And a Canada without great industries would not fulfil its destiny in the development of its rich resources of material and powers, nor would it in the end be a profitable and desirable arena for the farmer himself."

The Old Country.

Advocacy of Free Trade Principles. By "One on the Spot."

We have begun a new year, and many of us think we have begun it well. For the third time in succession a Liberal Government has been successful at the polls, a record never before obtained by either party. We have problems to face in England which you may never have to face in Canada. With your countless acres you have no need for the Land Song, which here has voiced the cry of thousands for the land, sung to the inspiring air, "Marching Through Georgia."

Sound a blast for freedom, boys, and send it far and wide,
March along to victory, for God is on our side,
While the voice of Nature thunders o'er the rising tide—
"God made the land for the people!"

The land! the land! 'twas God who gave the land!
The land! the land! the ground on which we stand!
Why should we be beggars with the ballot in our hand?
"God gave the land to the people!"

Clear the way for liberty! The land must all be free!
Britons will not falter in the fight, though stern it be,
Till the flag we love so well shall wave from sea to sea
O'er the land that's free for the people!

But while we face the land problem, you have to face the tariff problem, and we wish you godspeed. The Corn Laws, with wheat at nearly four dollars a bushel, have left memories which still live in the minds of the poor, and while these memories live the task of the protectionist in England is almost futile. Unhampered by protection, the Old Country beats all rivals. The United States, Germany and France are all left behind. The vast natural advantages of your country enable her to prosper in spite of the tariff under which she labors. In her huge domains she has natural resources which, wedded to freedom of trade, would place her in the forefront.

What has protection done for the United States? Has it prevented the decay of her mercantile marine? Her population, area and natural resources are much greater than those of England, and still England beats her. Is the Yankee not as "cute" as the Britisher, that the latter exports twenty times as much cotton goods as the former, or is there something wrong with the system under which he trades?

As a measure of the great advantage which the Canadian farmer has over his British brother, one may compare the cost of their farms. An advertisement in the Nor'-West Farmer lies before me—a 160 acre farm in Alberta is offered for \$2,000. Compare this with the sale of a 70 acre farm in Shropshire, England, for

\$21,240, the purchaser also paying an annual tithe of \$48. An acre of England costing 24 times as much as an acre of Canada!

In everything except freedom of trade the Canadian farmer has the advantage over his English brother. Agricultural education and research receive subsidies which are vast compared with the insignificant sums provided by the British Government. Your agricultural departments are alive, while our Board of Agriculture sleepeth. It is even the same with the agricultural papers. There is not a British agricultural paper which comes near the Nor'-West Farmer in giving value for money. Your Government constantly advertises in our newspapers, and describes the advantages of Canada in glowing terms, and even sends exhibits and travelling lecturers to our agricultural shows to tempt our laborers to emigrate with offers of free land.

While you are all booming the prosperity of Canada, the protectionists here manipulate statistics in order to disparage the prosperity of their own country and to delude the English into abandoning free trade.

Prosperous England still maintains her open ports and welcomes the bountiful grain from Canada. May the day soon come when the only barrier ever to be found across the harbors of Canada shall be the winter's ice.

Farmers' Short Course at Winnipeg.

We have received the printed programme for the farmers' short course and conventions to be held at the Manitoba Agricultural College, Winnipeg, during the week of Feb. 13 to 17. Interested parties should write the Principal of the Manitoba Agricultural College, asking for a copy.

New Baynes Carriage Catalogue.

The Baynes Carriage Co., of Hamilton, Ontario, have just issued an artistically finished supplement catalogue, illustrating all their new spring and summer carriage styles. Some of the nattiest designs this well-known firm has ever turned out are included, and should prove whirlwind sellers in the West. A copy of the new catalogue will be sent free on request to all agents or prospective agents in districts where they are not at present represented.

Large Premises for a Large Business.

Friends of A. E. McKenzie Co., Ltd., Brandon and Calgary, are busy congratulating them upon the splendid new premises recently erected and occupied by them at Brandon. Their new building represents all that is newest and best in construction, architecture, and equipment. Constructed throughout of reinforced concreted tile metal frames, copper and steel doors, wire glass windows and modern fire apparatus, it is proof against fire. The exterior is highly embellished with a massive colonial genuine copper cornice, copper window settings, deep, rich, maroon-colored high-pressed brick, and two floors of beautiful white Bedford stone, with a marble base.

While this magnificent building is located in Brandon, it is one of which the entire West can be justly proud, as it serves to measure the growth and development of our western country.

Aside from this, it expresses the appreciation that the seed buying people has bestowed upon this institution. The present large business of this firm had a humble beginning, and it has grown so that now it announces itself as "the largest, strongest, most modern, best housed and finest equipped seed house in the Canadian West."

Their handsome 1911 catalogue not only carries on the outside cover an illustration of the new and old buildings, but devotes five pages within to a very interesting narrative, nicely illustrated, covering the growth and development of this seed business since its inception. This fine catalogue is illustrated by half-tone engravings reproduced from photos taken from life. It will be sent anyone upon request. Mention this paper when making your request.



A Plow for the Northwest.

Our readers will doubtless be interested to know of a plow built especially for the hard work of the North-West. We refer to the Janesville North-Western Gang, built by the Janesville Machine Company, of Winnipeg, Man. The Janesville North-Western is built much stronger and of much superior materials than is usual. But aside from extra strength there are many other features to recommend it. In the first place, it is provided with extra heavy beams, allowing a very long cross clevis to be attached, and giving you choice of four horse abreast—or four, five or six horse tandem hitch.

The Janesville foot-trip horse lift means that you simply trip the "lift" with your foot while riding or throw the land wheel lever while walking, and the horses will pull the plow bottom into the ground at the start and out of the furrow at the end. The point of the plow always goes in and comes out first, just like the walking plow, because the movement is just like your arms. In entering the ground the heel of the plow bottom is held up, so the point must go down first. In leaving the ground the heel of the bottom is held down, so the point must come out of the ground first. There are other important features of the Janesville North-Western Gang that you should know about. See the advertisement on another page, or write to the Janesville Machine Company, 15 King Street, Winnipeg, Man., for their free booklet, which tells the whole story. Now is the time to write. A postal will do.

Complete Course of Music in the Home.

The finishing touch is given to any new development of human progress when the cultivation of music takes a first position in its programme and becomes a necessity to its aspirations.

Such a thing as a "Conservatory of Music" until a recent date loomed too far ahead in Western Canada's pathway of education that no man or body of men had the temerity to think of it as a feature in Western civilisation.

Now, however, with the healthy capital of \$50,000, the Columbian Conservatory of Music of Canada has been incorporated, with headquarters at Winnipeg. It is a branch, but entirely independent of

the parent company (capitalized at half a million), an American institution, with branches all through the United States and numbering its pupils by tens of thousands.

The Conservatory is completely equipped for the teaching of the piano, voice production, orchestra and band playing, violin, elocution and kindred subjects, and that feature of its fine work which will make a strong appeal to readers of the Nor'-West Farmer is its unique arrangements for teaching by correspondence.

Realizing the fact that there are many thousands of homes in Western Canada in which musical talents of a very high order exist side by side with the utter possibility of having them developed unless they can be reached at home, the correspondence course has been established, already with the most remarkable results.

The worth of any production rests almost entirely upon the persons who are responsible for it, and nowhere else more so than in the imparting of the knowledge of music in all its branches. At the head of the undertaking, as editor-in-chief, is Professor W. S. B. Mathews, whose name is a household word wherever music is known, through his many writings, but particularly by his "Mathews' Graded Courses in Music," which is known to every student of the piano on the American continent. For close on sixty years he has been connected with leading musical organizations, and this highly qualified musician esteems it an honor to devote the remainder of his life to the Columbian Conservatory of Music.

The Superintendent of Instruction, Professor Frederick Hobart, is also a thorough musician, having been a member of the faculty of the Illinois Wesleyan College of Music until he joined the Columbian seven years ago. During that period he has had the supervision of more than 50,000 pupils, and it is he who has so successfully developed the home study method, which, as has been said, is one of the principal features of the local conservatory.

Holding another responsible position is Professor Frederick Lillebridge, who is as widely known in Europe as in America as a composer and pianist of great merit. He was the pupil of the great Berlin master, Bernhard Ziehn, and is regarded as one of the greatest authorities living on the theory of music.

The associate editor of the Columbian intermediate or second year course is William D. Armstrong, who has had wonderful success along the line of theory, technique and teaching. He studied in America and Europe under leading masters. He is a composer of many well-known orchestral works.

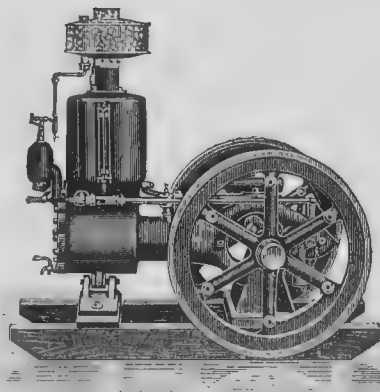
Last, but by no means least, is Profes-

Greater Profit---Less Labor

Lots of Leisure

assured to the farmer who uses a

"STICKNEY" Gasoline Engine



The very best general purpose engine for farm work. The most easily operated, the most effective and the BEST VALUE of all power

machines is the positive testimony of the men who are using it and who have experimented with others. Winter or Summer, it never balks, and it is essentially the COLD WEATHER ENGINE.

THE SAME INVARIABLE TESTIMONY IS GIVEN TO THE

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No type of traction engine will give you more perfect and profitable results in SPRING PLOWING. Having done your own work, it will bring in a large revenue from what it will do for the neighbors.

Twice Gold Medal Winner at Winnipeg

Write at once for catalogue and testimonials of our full line of Windmills for Pumping or Driving Machinery, Armstrong-Quam, Howell or Dempster Well Drilling and Boring Machinery, Aylmer Pumps and Standard Scales; also the new Aylmer Pitless Scales; Toronto Grain Grinders and Saw Frames in all sizes; Toronto Iron and Wood Pumps, Brass and Iron Cylinders, Steel Tanks and Troughs, Wood Tanks, Cow Basins and Stanchions, Belting, Well Casing, Pipe and Fittings.

Ontario Wind Engine and Pump Co. Ltd.

TORONTO

WINNIPEG

CALGARY

sor James Mc Masters, the inventor of a wonderful device for teaching the fundamentals in music. This is the tonograph, which leading musicians and critics agree is the most perfect musical teaching device ever invented. It is used solely by the pupils of the Columbian Conservatory, and will, of course, be placed in the hands of local students.

At the back of the local institution the Conservatory has been particularly fortunate in its selection of Mr. S. L. Barrowclough as its president. Not only is Mr. Barrowclough an accomplished musician, but from his long residence in

Winnipeg and the splendid service he has rendered to the Western public, his personality has gathered around him a large and far-reaching circle of friends.

His integrity and business aptitude is another powerful asset on which the Conservatory can bank. Those qualities have been abundantly proved by his conduct while managing the interests of the Karn-Morris Piano Company for Western Canada, a position which he has vacated to identify himself with the fortunes of the Conservatory. While remaining a member of the Karn-Morris Company, he will devote his entire time and energy to the new organization. Neither will



Winnipeg City Band, while it was the guest of Elbert Hubbard at East Aurora.



ALBERTA \$9.90 buys best 245 egg incubator. Brooder for \$6.65. Duty 25%. The Alberta is made by a Canadian and is adaptable to that country. It has heavy double walls, double glass doors, best copper hot water tank, safety lamp, nursery and self regulator, complete for operation. This high grade hatchery is a result of many years' experience. Guaranteed and long trial. Write for free catalog. If in a hurry send price to save time. Alberta Incubator Co. Box 906, Mankato, Minn.

Stationary Engineering

Full course of instruction by mail in the construction, care, and operation of boilers, engines, and all appliance in connection with stationary plant. Fits you for examination for license in any province. Courses also in Traction, Gas and Gasoline, Marine and Locomotive work. Ask about what interests you.

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BANK OF HAMILTON CHAMBERS, WINNIPEG, MAN.
Solicitors for Nor'-West Farmer.

STRAYED

On the premises of the undersigned, Sec. 31, 8, 3, west 2 miles east of Culross, one aged grey gelding; weight 1100 lbs. Owner may have same by proving property and paying expenses. James Ross, Culross, Man.



S. L. Barrowclough, President

the new departure in any way affect his position in Winnipeg's City Band, of which he was the founder, and has been its talented conductor from the day it gave its first public performance.

Associated with Mr. Barrowclough is Mr. J. D. Turner, who has been with the Columbian body since its inception as organizer and demonstrator of the various courses. He has accepted the post of general manager of the new company.

In teaching the piano or organ by correspondence, the course consists of forty-eight written lessons, which are accompanied by the necessary scale charts, 50 pieces of sheet music, and the tonograph



J. D. Turner, General Manager

—a wonderful little device which simplifies the study of music to a point which cannot be missed by the most inapt pupil.

With the violin course the Conservatory provides a complete outfit, consisting of violin, case and bow, 48 written lessons, finger board charts, etc. For the piano and organ the price is \$50 for the entire course, payable \$15 in cash, balance \$8 monthly or \$45 cash. For violin course the inclusive cost is \$60, payable \$25 cash on receipt of outfit, and \$8 monthly or \$54 cash.

The ideas of no one individual teacher, Conservatory or method dominate the courses taught, but the very best is carefully selected from the methods of leading teachers and conservatories all over the country, both in Europe and America.

In seeking help to make the best of their talent for music, the Nor'-West Farmer has great pleasure in recommending any of its readers to get into touch with the Conservatory.

Mr. Barrowclough is a very old friend, and in any statement emanating from, or undertaking given by, him or his colleagues of the Conservatory the inquirer may have every confidence. The new and finely equipped headquarters of the Columbian Conservatory are in the Phoenix Block, corner of Notre Dame and Princess Streets, Winnipeg.

Demand for the Everitt Car Growing.

The Tudhope Motor Co., of Orillia, Ont., have closed a great many agency contracts for their new "Everitt" car. Montreal, Toronto, Winnipeg, Regina, Saskatoon, Calgary, St. Catharines, Ottawa and other centres are now represented.

Canadian Bank of Commerce Report.

With its numerous branches, a modern bank has unusual opportunities of knowing the movement and condition of trade in all parts of the country. For this reason a bank report is always worthy of attention, and this is especially the case with a large and important bank like the Canadian Bank of Commerce, whose annual report appears in this issue. The Canadian Bank of Commerce has a number of branches in this country, and advantage is taken of the facilities it offers by many of our readers. We feel therefore that its report will receive the attention it deserves.

The Golden Stream.

A very commendable little booklet of 68 pages, called "The Golden Stream," has been recently issued by the International Harvester Company of America.

This booklet covers a multitude of vital facts relative to the plain, everyday cow, in a very interesting manner. Such up-to-date topics as "The Dual Purpose Cow," "Bovine Tuberculosis," "How to Make a Babcock Test," "Rations for Dairy Cows," "The Feeding Value of Silage," and "Advantages of Dairy Farming," etc., etc., are discussed. In general, the purpose of the book is to impress the farmer with the proper relation of the cow to our modern civilization as the source of a golden stream of wealth.

Numerous illustrations throughout the booklet, showing record-making cows and herds of various milking breeds, silos, dairy barns and interiors, etc., greatly enhance the value of the booklet. It will be greatly appreciated, especially by farmers and dairymen. A copy of the booklet may be obtained by writing the company at any one of the various I.H.C. branch houses.

"When Poultry Pays".

The Practical Solution of Profitable Poultrying.

The co-operative poultry raising and selling methods that are fathered by Lee Manufacturing Company, Ltd., of Pembroke, Ontario, and that they have embodied in "The Peerless Way," are attracting a great deal of attention. In the past few weeks this firm has received several thousand letters from poultrymen and farmers in all parts of the Dominion asking for information on the subject. As a result, co-operative poultry circles are being started in many sections of the country, and in these parts producers' prices on eggs and market poultry are said to be rising fast. Hundreds of pleased followers of "The Peerless Way" have written personal letters to Lee Manufacturing Co., Ltd., telling them of the increased profits they have made by going at the business scientifically and systematically. The free book which Lee Manufacturing Co., Ltd., send out in response to inquiries is known as "When Poultry Pays," and contains 64 pages of hard facts about practical poultry methods. Anyone who is interested in the subject cannot afford to miss reading this book—in fact, it ought to be read at least twice. It tells the complete story of "The Peerless Way." It tells how "The Peerless Way" explains all about the capital required for a plant of any size; about poultry houses; breed and strain of parent stock; whether to begin with birds or eggs; artificial incubation; how to feed and care for your stock; what proper food means—for eggs, for market fowls; the feed value of foods; different foods and how they ought to be balanced; rearing of chicks; how they should be handled in the brooder; the colony system; about feeding and preparing table fowl for market; fattening; crate feeding; fattening rations; market requirements; fasting; killing; dry plucking; plumping or shaping; packing dressed fowl; shipping live poultry. In

short, it tells you everything you need to know to have your fowl command highest market prices. We would advise all our readers to write for this book. Address your letter—Lee Manufacturing Co., Ltd., 133 Pembroke Road, Pembroke, Ontario.

Saskatchewan Agricultural Societies' Convention.

Some new faces will be seen this year at the Agricultural Societies' Convention at Regina, which opens on January 1st. Mr. W. H. Fairfield, superintendent of the experimental farm at Lethbridge, who is perhaps our best Canadian authority on the growing of alfalfa, will address the convention on that subject; while Dean Rutherford will tell about Saskatchewan's alfalfa growing competition in 1914; and A. F. Mantle, Deputy-Minister of Agriculture, will present some information regarding the great feeding value of that crop. Mr. George H. Barr, chief of the Dominion Dairy Division, will speak on "The Farmers' Responsibility in the Production of Superior Milk, Cream and Butter, and How it can be Accomplished," and will also give an illustrated address on "Canada's Dairy Industry." Mr. John I. Brown, who is in charge of the poultry department of Gunn, Langlois & Co., a wholesale commission firm in Montreal, has been asked to speak on "The Place of the Hen on the Farm." Mr. F. J. Robinson, Deputy-Minister of Public Works, will speak on "Good Roads and Their Value to the Farmer." Theodore Kipp, who is identified with the Saskatchewan Flour Mills Co. at Moose Jaw, will talk about "The Intrinsic value of Oats for Milling Purposes." Last year a detailed discussion took place on the milling value of wheat. This year attention will be given to oats. "Profitable Methods of Flax Production" will be discussed by Mr. A. F. Mantle, Deputy-Minister of Agriculture. "The Growing of Fodder Corn, Potatoes and Roots" are subjects which Mr. Angus Mackay, Saskatchewan's distinguished agriculturist, has been asked to explain to the convention. Mr. A. D. Thompson, Prince Albert, who has successfully grown winter wheat in Northern Saskatchewan for a number of years, will tell how he did it. Professor John Bracken will address the convention on "Some Studies in Soil Physics."

A new feature at the convention will be a provincial seed grain judging competition, accompanied by demonstrations. The judging course will cover

wheat, oats, barley and flax, and will be conducted by John A. Mooney, Regina; Prof. John Bracken, Saskatoon; F. H. Reed, Sask., representative of the Dominion Seed Branch, Regina; and Prof. T. N. Willing, of Saskatoon, respectively.

There will be three half-day sessions devoted to the discussion of agricultural societies' work. Spring stallion shows, plowing matches, good farming competitions, summer fairs, agricultural societies' accounts, the acquiring of grounds and buildings and other matters incidental to the work of the societies will receive their share of attention. The speakers on these subjects include Dean Rutherford, Professor Bracken, W. L. Ramsay, Bladworth; J. K. Millar, Saltecoats; R. Meikle Crowe, Windthorst; F. Hedley Auld, and a number of others. The evening programme will include features of particular interest. President Murray, of the Saskatchewan University; Hon. W. R. Motherwell, Mayor McAr, Mr. N. M. Ross, Dr. Mary Crawford, of Winnipeg; Dean Rutherford, A. F. Mantle and a number of others will take part. Premier Scott will preside at the evening meeting on January 31st, and an interesting part of the programme on that evening will be a farmers' club demonstration by members of the Bladworth Agricultural Society, under the direction of W. L. Ramsay, honorary president of the society. The Canadian Seed Growers' Association will hold a special session on Friday morning, February 3rd; after which exhibits which are for sale and then remain unsold will be disposed of by auction. Altogether the convention promises to be one of exceptional interest, and, being held on the same dates as the Saskatchewan Dairymen's Convention and the Saskatchewan Women's Club Convention, will no doubt attract a very large gathering.

This is the time of year to have the harness and implements thoroughly overhauled and made ready for spring.

LAMENESS from a Bone Spavin, Ring Bone, Splint, Curb, Side Bone or similar trouble can be stopped with

ABSORBINE

Full directions in pamphlet with each bottle. \$2.00 a bottle at dealers or delivered. Horse Book 9 D free.

Mr. M. C. Weightman, Monteith, Man., writes April 6, 1907, "I have used ABSORBINE with good success on soft swellings."

W. F. YOUNG, P.D.F., 252 Temple St., Springfield, Mass.
LYMANS Ltd., Montreal, Canadian Agents.
Also furnished by Martin Bole & Wynne Co., Winnipeg;
The National Drug & Chemical Co., Winnipeg and Calgary;
and Henderson Bros. Co. Ltd., Vancouver.

WORK WITHOUT FATIGUE
You won't feel exhausted when you take
EPPS'S COCOA FOR
BREAKFAST!
It will sustain you as nothing else will—there is strength
in every particle of it. As a supper beverage it is perfect.

When you come to the **CANARIES**
Bonspiel



DON'T fail to visit our Aviary at the undernoted address. By far and away the finest and still inexpensive souvenir you can take home is one of those splendid Song Birds, Talking Parrots, Australian Love Birds, and others of Nature's great feathered tribes.

We stock and ship nothing but reliable birds, and can show you hundreds of testimonials from delighted patrons.

Fancy Dogs and Tame Monkeys always kept in Stock.

Winnipeg Bird Store

J. H. HIRSH, Manager

354 Portage Ave.



As it is desired to make this department of the greatest possible value to subscribers, advice is given in it free in answer to questions on veterinary matters. Each enquiry must be accompanied with the name and address of the subscriber, but, if so desired, the name will not be published. Free answers are given only in our columns. Persons requiring answers sent them privately by mail must enclose a fee of \$1.50. All enquiries must be plainly written, and symptoms clearly but briefly set forth.

Rheumatism.

A.B.C., Gerald, Sask.—“Horse is 14 years old, and although he has never been sound in his legs for years, of late he has got all stiffened up, so much so that when he first gets up he has to stand for half a minute or so before he can straighten up on his legs. We turn him out every day, and about the first thing he does is to lie down. He seems to lie down the most of the time he is out. He also has got very thin, and does not gain any, although he eats well and looks bright.”

Answer.—The horse is suffering from rheumatism, and will probably not improve much until warm weather comes. Keep him well blanketed and warmly stabled, and give him two drachms of salicylate of soda twice a day in his feed.

Oestrus.

H.S., Minnedosa, Man.—“(1) Is there any sure test by way of finding out whether a cow or young sow is ready for serving? We have a long way to take them for breeding, and do not wish to go oftener than necessary. What are the usual symptoms?”

(2) Running mare, supposed to be in foal (first time), passes bloody urine often, and seems to suffer from indigestion. What remedy is suggested? Is fed good clean hay and chop.

Answers.—(1) The symptoms of heat in a cow are restlessness, frequent urination, discharge of mucus, sometimes bloodstained, from the vagina, but in many cases the symptoms are too slight to be noticed. The symptoms in the sow are somewhat similar.

(2) Bloody urine sometimes indicates stone in the bladder, and you should have an examination made by a V.S.

Rickets.

S.S.V., Pickardville, Alta.—“I have a sow, six months old. She cannot stand on her hind legs; she has been that way over one month. Her legs stay straight under her body; does not eat much.”

Answer.—Give the sow two ounces of castor oil, and after this has cleaned her out feed her a mixed diet if possible—potato peelings, chop, and especially skim milk. A teaspoonful of phosphate of lime should be given daily in divided doses in the feed.

Epilepsy.

J.R., Elstow, Sask.—“I have a pig, 3 months old, that on December 25th I noticed to be breathing with difficulty. Since then every time I feed it it tastes the food and then goes into convulsions, coming round after a short time and eating. I am feeding bread and milk, with a little chop now, but was giving chopped wheat and oats, half of each. I have separate it from the others, which keep all right. The stable its pen is in is warm.”

Answer.—It will be wiser to kill this pig than to treat it, as the result is doubtful, and its meat will be wholesome.

Quarter Crack.

New Subscriber, Oliver, Sask.—“I have a driving horse with quarter crack on front foot; when driven, gets sore and goes a little lame. Seems to be cracking further up into foot. What treatment would you advise?”

Answer.—If the crack extends up to

the top of the hoof and occasionally bleeds, it should be treated by operation as follows:—Poultice the foot for a day to soften it, then with rasp and farrier's knife remove the wall on either side of the crack from the bottom to the top, widening out the part removed in a V shape. This should be carefully done, so as not to draw blood, and yet pare the wall down until thin enough to be quite flexible under the pressure of the thumb. Then with a thin-edged firing iron sear a groove just between hair and hoof across the top of the V, so as to separate the diseased part from the coronet. The groove should be from a quarter to half an inch deep. After this keep the horse in for a few days and apply vaseline to the part daily to keep it soft. If properly done, the operation will result in a permanent cure.

Breeding Cows.

H. A. H., Hand Hill, Alta.—“Last year we left Minnesota and came to Alberta. Had some cows along; one of these already had a calf before we left Minnesota. Two others came in six weeks after we came to Alberta. These three cows have been bred five or six times last summer to different sires without success. Will they ever come to have a calf any more? What will be the best to do with them?”

Answer.—There is no reason why these cows should not breed again. Try another bull, and see advice in this column to “E. D.”

Will Not Breed.

E. D., Lothian, Man.—“I would like advice through your paper on how to get a cow in calf. She is only five years old; has had two calves, and I have taken her to the bull every time she came in heat this summer.”

Answer.—If the cow is fat, reduce her feed and turn her out for exercise every day. Don't try her again until you have got some of the fat off her. If the cow is thin, give her better feed, including a little chopped grain twice a day, and breed her when she has improved in condition.

Veterinary Correspondence School.

P. A. S., Lanigan, Sask.—“(1) Can a graduate of the Ontario Veterinary Correspondence School practise legally in Manitoba, Saskatchewan and Alberta? (2) Is there a veterinary college in Winnipeg?”

Answer.—(1) No; the diploma of this school is not recognized anywhere. (2) No; there is no veterinary college in Winnipeg. The nearest Canadian College is in Toronto.

How to Become a Veterinary Surgeon.

S. J. W., Medicine Hat, Alta.—“How should one proceed to become a veterinary surgeon?”

Answer.—You will have to attend a veterinary college, pass the necessary examinations to obtain a diploma, and then register in the province in which you wish to practise. There is no veterinary college in the West, and you would have to go to Toronto. The course extends over three winter sessions and you would be required to spend the intervening summer with a veterinary surgeon. Write to the Secretary, Ontario Veterinary College, Toronto, and ask for their prospectus.

A Strange Habit.

C. F. W., Colonsay, Sask.—“I have a pony that has a habit of eating eggs. Can you inform me what I can do to keep him off this?”

Answer.—Eggs are rather an expensive diet for a horse, and you should provide a better place for the hens to lay than in the manger. A remedy to cure the habit is to blow an egg and then fill the shell with a mixture of red pepper, flour and mustard, closing the opening by pasting a bit of white paper over it. This is placed where the animal can find it.

250 Horses By Auction



SPEERS' HORSE EXCHANGE

Auditorium Barn, C.P.R. Stock Yards

WINNIPEG

(Near Logan Ave. and McPhillips St.)

Take Belt Line and Logan Ave. West Car.

150 Horses on Feb. 1st
100 Horses on Feb. 15th

Sale starts at 12 o'clock each day.

CONTRACTORS AND FARMERS can save money by attending this sale. We have the right horses for every purpose. A fine selection of all classes—heavy draft, general purpose, express and delivery horses, including two carloads of Manitoba draft mares and geldings.

DEALERS can save the time and expense of a trip East. Special rates on all Railroads during

Bonspiel Week

We Sell Strictly on Commission

Commission 3 per cent. Entry fee (if not sold) \$1.00 per horse.

All horses sold with a warranty are returnable by noon the day following sale if not as represented. Private sales daily.

This is the only horse exchange with railroad loading facilities.

Western buyers can buy a carload in a day. No stopping over necessary.

R. JAMES SPEERS, Manager and Auctioneer

City Office, 709 McArthur Bldg.

Phone Main 3081

An Ideal Home An Assured Competency

from supplying an inexhaustible market with fruit and vegetables.

Why pay a fancy price for greatly advertised **FRUIT LANDS** when you can obtain acreage of probably much better land at a point more convenient to the market at

One-Fifth of the Price?

Get one or two friends together and let us help you to a wholesale line of a large tract of land directly on the banks of the **COLUMBIA RIVER, KOOTENAY VALLEY**, close to railway track, with daily service both ways for

Twenty-Five Dollars per Acre

Vastly inferior lands to these at less accessible points are being sold at \$100 to \$150 in ten acre lots. We guarantee a splendid income in return for ordinary labor. A large tract under cultivation has yielded many thousands of dollars in small fruit and vegetables this season and the orchards planted between them are fast coming to maturity.

**BEST INVESTMENT OBTAINABLE
IN CANADIAN LANDS TO-DAY!**

MAURER & WILDE, 901 McArthur Bdg., Winnipeg



The situation in the grain market is very carefully reviewed in the following special letter written for us after the close of the markets of Jan. 17:—

Wheat.

During the two weeks which have passed since the date of our last review of the grain markets appearing in these columns, we have to record that wheat markets have been comparatively active. Activity in the grain market is generally owing to an increase in demand, and consequent advance in prices.

The changed conditions of the wheat markets really started about the beginning of the last week in December, and after a slight advance in prices at that time, quite a change in the attitude of the general trade towards wheat could be noted. Previous to the end of December the majority of the large commission houses in Chicago and other speculative markets could see no hope in higher prices for wheat. These people are among the best informed in the trade as to the immediate situation regarding demand and supplies, and if they believed general conditions were such as to indicate the probability of lower prices, they would naturally advise their customers to that effect, and would themselves freely sell short for future delivery. But their conclusions might not be based on an accurate analysis of the situation, and the experience of the market during the past two weeks seems to endorse that view. They and others following their advice or suggestions sold freely and overloaded the market on the selling side. A few large professional operators in Chicago (whether as a pure gamble, or after a careful and broad examination of the breadstuffs situation in regard to its present position, and to the probable development of coming crops in relation to future supplies, we cannot tell) have espoused the long side of wheat, and had, before the recent advance, bought up from twenty to thirty million bushels of wheat for May and July delivery, and to a large extent these people control the markets. That is, if they appear as sellers, many others take the selling side, and prices ease off, and, perhaps, decline sharply. On the other hand, if they show up as buyers, then prices begin to advance, and everyone turns buyer, with the result that a substantial advance takes place without any particular change in the supply and demand position of wheat having exerted any influence in the matter whatever. We are of the opinion that these large professionals, with their many sources of information as regards the world's grain trade and future crop prospects, have concluded that developments during the coming months point to a condition of things which will result in higher prices for wheat. At the present time it would have been quite as easy for them to have espoused the bear side of the market and by selling freely for future delivery have, by the actual selling of large quantities, and the influence on the market that such selling would have had, forced down prices, and after the decline could have bought in to cover their sales. Evidently they have considered that the long side rather than the short side was the best to adopt. Their doing so gives an added strength to the strong situation in wheat which we believe is practically bound to develop during the next few months. In writing thus, we do not forget that many things may arise to interfere with and modify the conclusions which we at present believe to be all but certain.

In the meantime there has been a considerable increase in the volume of speculative trading, and an advance of 3c. to 4c. in price since the date of our last review (January 3rd), with, during the last three days, an easing back of about 1c. There seems no doubt but that the trade has been lifted out of the rut it found itself in during the greater part of December.

The immediate surroundings of the

wheat situation at present do not appear decidedly bullish to those who merely content themselves with a view of the surface. Visible stocks are liberal and present moving supplies are a fair volume. Demand for actual wheat and for flour is moderate, though steady, but we believe the stocks in the hands of millers, flour dealers and bakers are small, owing to the hand to mouth policy of trade they have followed for months past. This policy has been well enough during the intervening months since the harvests of 1910 began, and farmers everywhere in Europe and America were bringing to market liberally the first run of their new crops. But that is over now; it was comparatively large while it lasted, but the balance left to come from the farms between now and September is a much less percentage of the crop than is usually marketed in the last half of the crop year. Hence we already find much decreased movement from first hands, and that only needs to continue a little longer until accumulated visible stocks will have to be freely drawn on, and when liberal decrease in stocks is seen, demand will easily increase, and, with increasing demand, higher prices.

No one can say with certainty just when prices will begin to increase materially, because it depends partly on the operations of bullish speculators and partly on the supply and demand conditions, and partly, and, perhaps, mostly, on the outlook for the 1911 crops in the northern hemisphere. The one interest or influence will help the other, but it may be that while markets keep firm, the trade will move along quietly from week to week and prices make no important advance until the time of crop scares comes along with the going away of winter and changing into spring and early summer.

In this view it seems to us that it is good advice to say to the farmer to hold on to all the wheat (and other grain also) still on the farm, and haul none of it to market before March at least, and, if possible, hold on to most of it till after seed time is over. We cannot conceive of the farmer having to take less for his grain after seedtime than he can get at present, and it may easily happen that he will get from 10c. to 20c. per bushel more on wheat at least, and a corresponding advance on oats and barley.

In considering the market prospect for the future, the following are a few things that may be kept in mind, viz.: France has still half of her deficiency to buy (say 40,000,000 to 50,000,000 bushels) in place of none at all; Germany, Belgium and Italy will need extra large imports of wheat and flour before they have another harvest. Also that there is a partial failure of the rice crop in Japan and of the wheat crop in Manchuria, which is causing Japan to come into the Pacific coast markets and buy flour on a liberal scale. Also that a portion of the Chinese empire is in a condition of famine, which implies the probable shortage of crops over a larger area than merely the famine district. In consequence of this China also has appeared as a buyer of flour on the Pacific coast. Also that the potato crops in the United States and Canada, and in France, Germany, Belgium and the United Kingdom are all considerably short in quantity and high in price, and that fruit and vegetable crops in many parts of America and Europe have been wholly or partially failures. Let us not forget also that the spring wheat crop of the United States and Canada for 1910 is probably 120,000,000 bushels less than the crop of 1909. Then there is the long spell of wet weather over western Europe, and the excessive and abnormal dry soil conditions over western America and western Canada, which seem to be laying the sure prospect for a much decreased world's wheat yield in 1911.

The foregoing combination of circumstances seem to us of a very bullish kind, looking to the future and, while modifications in developments may occur, we think the prospect in the long run will result in considerably higher prices, and these will continue to run on a comparatively high plane until the time comes again when world's production increases to the extent of providing very large reserve supplies.

There is nothing special at the present time regarding the movement or

Ship Your Grain

to a strictly commission firm and have it handled to your advantage. We handle strictly on commission—look carefully after grading—obtain best prices and furnish prompt settlements. Write for market prospects and shipping directions.

THOMPSON, SONS & CO.

GRAIN COMMISSION MERCHANTS

703a Grain Exchange

Winnipeg, Man.

Oats and Barley

Ship to us for best results. Our long established connection in the East ensures you the very highest price—and you get quicker results.

We give you the same government weights and grades as you get at Fort William.

Liberal cash advances on receipt of bill of lading. Write for information and prices.

ANCHOR ELEVATOR AND WAREHOUSING CO. LTD.
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Grain Shippers

Patronize a Grain Company that will always get you top prices. Many farmers this year have written us their unsolicited appreciation of our services and thanking us for the uniform satisfaction we have given them. May we add you to our list of

SATISFIED CUSTOMERS?

Continental Grain Co.

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Feed and Seed Grain

We will be glad to name net price delivered your station, oats, barley, or flax. Write or wire. Entrust what grain you have to ship to our care to be sold to best advantage. Careful attention given grading. Large advances and prompt adjustments. If you wish to sell on track wire us for net offer soon as you have cars loaded.

James Richardson & Sons Ltd

Western Offices:

Grain Exchange, Winnipeg

Grain Exchange, Calgary

Alex. Naismith, President. Wm. Paterson, Vice-Pres. C. D. Kerr, Treasurer.

The Wawanesa Mutual Insurance Co.

HEAD OFFICE: WAWANESA, MAN.

A. F. KEMPTON, Secretary-Manager.

Amount of Insurance in force Dec. 31st, 1910	-	-	-	\$24,136,616.00
Assets over Liabilities	-	-	-	374,682.00

THE NUMBER OF FARMERS INSURED DECEMBER 31st, 1910, OVER 18,193.

Over 18,193 farmers insured. The largest agricultural Fire Insurance Company west of Lake Superior. Agents wanted in unrepresented Districts.

marketing of wheat over the world; it is in the aggregate on a fair average scale for the time of year, and does not call for special remark.

Our Winnipeg market has been very active in trading in futures and prices have advanced steadily in line with prices in outside markets. The cash wheat trade is small, either on account of the severity of the weather or because shippers are not anxious to ship forward more grain at present, and the movement from the country has well nigh stopped. In the last three days only 129 cars of wheat have been inspected, against 481 cars for same days last year. We look for very moderate receipts during the remainder of the crop season.

Today's cash prices are:—1 Northern, 95½c.; 2 Nor., 92½c.; 3 Nor., 89½c.; No. 4 wheat, 85½c.; No. 5 wheat, 78½c.; No. 6, 73c.; Feed wheat, 62c. Alberta Red Winter wheat is not quoted owing to scarcity of it, but such odd cars as come along fetch 2c. under the corresponding grades of spring wheat. Futures closed, May, 99¾c.; July, 100¾c.

Oats.

The oat trade is not active, but there is a feeling in the trade that oats should advance some in price later on. Fort William stocks are liberal and demand from the East is small at present; Western requirements are large, but demand from that quarter is not strong or active yet. Today's cash prices are:—No. 2 Can. Western, 33½c.; 3 C. W., 31c.; Ex. 1 Feed, 31½c.; 1 Feed, 31c.; 2 Feed, 29c. Futures closed, May, 37¾c.; July, 38¾c.

Barley.

The barley market is quiet but steady and prices have advanced 2c. to 3c. since New Year. Prices today are:—No. 3, 50c.; No. 4, 40c.; Rejected, 38c.; Feed, 36c.

Flax.

The flax market is strong, but very little business doing. Prices have advanced 25c. per bushel in the last two weeks. Today's prices are:—No. 1 N. W., 248c.; 1 Man., 246c.; Futures closed, May, 255c.; July, 240c.

All prices mentioned above are on basis of in store Fort William and Port Arthur.—Thompson, Sons & Co.

Grain Inspections.

Inspections of grain at Winnipeg, Calgary and the Canadian office at Duluth for the first fourteen days of January were as follows:—

Spring Wheat.—No. 1 Northern, 63 cars; 2 Nor., 193; 3 Nor., 156; No. 4, 98; No. 5, 35; No. 6, 21; feed, 7; Rejected 1, 17; Rejected 2, 8; No Grade, 6; Rejected 7. Total, 611 cars.

Winter Wheat.—No. 2 Alberta Red Winter, 8 cars; 3 A.R.W., 4; 4 R.W., 3; 5 R.W., 3. Total, 20 cars.

Oats.—No. 1 Canadian Western, 3 cars; 2 C.W., 90; 3 C.W. 14; 1 Feed, 31; 1 Feed, 31; 2 Feed, 4; Rejected, 5; Black 1, 1. Total, 179 cars.

Barley.—No. 3 Extra, 1 car; No. 3, 30; No. 4, 7; Rejected, 6. Total, 44 cars.

Flax.—No. 1 North-Western Manitoba, 12 cars; 1 Manitoba, 2. Total, 14 cars.

Rye.—No. 2, 1 car.

Live Stock.

The receipts of cattle at the Winnipeg stock yards during the past few days have been very light and the quality has been below the average. This, in fact, has been about the situation with all classes of live stock, the receipts no doubt having been curtailed by the severity of the weather. The Swift Canadian Company, Ltd., inform us that their list of purchases for the week ending January 14 were as follows:—

	Average Weight	Price
20 Hogs	179	\$ 7.50
3 Cows	1125	4.35
7 Cows	1004	4.25
6 Cows	1115	4.00
1 Cow	1210	3.75
1 Cow	950	3.00
13 Steers	1208	4.50
2 Steers	1120	4.25
24 Cattle	981	4.35
2 Cattle	1125	3.50

The same firm also publishes the following list of market quotations:—

Choice export steers, freight assumed	\$4.50 to \$4.75
Good export steers, freight assumed	4.25 to 4.50
Choice export heifers	4.25 to 4.50
Choice butcher steers and heifers delivered	4.25 to 4.75
Good butcher cows and heifers	3.75 to 4.25
Medium mixed butcher cattle	3.00 to 3.25
Choice hogs	7.50
Choice lambs	5.50 to 6.00
Choice sheep	5.00 to 5.25
Medium calves	4.00 to 4.50
Choice night calves	4.50 to 5.00

Butter and Eggs.

A little butter is coming in from the country. There is a good demand, and dealers are paying from 20 to 25 cents a pound.

Eggs are scarce. New laid bring 35 cents laid down in Winnipeg.

Of Interest to Saskatchewan Women.

The first convention of Saskatchewan women which the College of Agriculture is holding in Regina in connection with the annual Agricultural Societies' Convention is an event in which every Saskatchewan woman should be interested. At last year's Agricultural Societies' Convention the delegates expressed the desire that a programme should be prepared for women, so that they could bring their wives with them; and in deciding to hold the forthcoming convention the College of Agriculture was influenced partly by that request. An excellent programme has been prepared, as the reading of this announcement will show. The women's sessions will be held each afternoon of January 31st, February 1st and 2nd, and on Friday morning, February 3rd; while on the afternoon of February 3rd the Regina Local Council of Women will give a reception to the visitors.

The programme includes addresses by Miss Lillian Beynon, of the Free Press, Winnipeg; Dr. Mary Crawford, Supervisor of Health in the Winnipeg Schools; Mrs. Nellie L. McClung, Manitou, Man., whose books, "Sowing Seeds in Danny" and "The Second Chance," have met with such popular favor; Mrs. W. R. Motherwell, Abernethy; Miss Joan Hamilton, Supervisor of Domestic Science in the Regina Public Schools; Miss E. Cora Hind, of the Manitoba Free Press; Miss Mary S. Mantle ("Margaret Freeston," of the Nor'-West Farmer); Mrs. Lorne K. Elliott, for a number of years connected with the Women's Institute movement in Ontario; Mrs. A. Neville, Cottonwood, Sask.; Hon. W. R. Motherwell, Minister of Agriculture; W. A. Wilson, Superintendent of Dairying and Poultry Fattening Stations in Saskatchewan; Dr. G. A. Charlton, Provincial Bacteriologist; Mr. Norman M. Ross, Superintendent of Dominion Forestry Station, Indian Head, and a number of others will deliver addresses.

The subjects to be discussed include "Women's Clubs," "Some Ontario Women's Institutes," "The Importance of Social Life in Country Homes," "The Model Kitchen," "Growing Strawberries and Raspberries in Saskatchewan," "House Plants," "Poultry Raising and Marketing," "Domestic Book-keeping," "Domestic Water Supply," "Hints on Home Nursing," "What Women's Clubs can do for our Public Schools," "The Delegate's Duty after the Convention," "Domestic Science training for Saskatchewan Women." Besides these subjects, a number of others of interest to women will be discussed at evening sessions in the City Hall. The Regina Local Council of Women are preparing a programme of musical numbers, and at the evening sessions in the City Hall music by Whell's Orchestra and a number of prominent vocalists will be pleasing features. Such a programme should attract the women from the farm homes and urban centres of the province in large numbers.

Japan grows about seven million acres of rice each year, and only a trifle more than one million acres of wheat.

WANT, SALE AND EXCHANGE

Under this heading will be inserted advertisements of farm properties, farm machinery, etc., for sale and exchange, farm help wanted, articles wanted and other lines of miscellaneous advertising.

TERMS—Two cents per word per insertion, payable strictly in advance, name and address to be included in the count. No advertisement will be taken for less than 50 cents.

WOLF HOUND PUPS FOR SALE—From good Killing Stock. Joseph Ward, Hilton, Man.

MARRIED COUPLE—With one child, seek re-employment for the year on farm. Four years experience. Prescott, Kirkella, Manitoba.

OATS FOR SALE—Two car loads of Oats for Sale. Apply to Wm. Martin, Box 78, Grand View Man.

FOR SALE—A good half Section Improved Farm in the Plumas district. For terms and particulars apply to C. A. Rogers, Plumas, Man.

WANTED—To contract with party near Provost, Alberta, for breaking and seeding 160 acres level land next spring. Write 441 Rosedale Street, Pittsburg, Pa.

FOR SALE—Registered Percheron Stallion, black, weight 1900 lbs.; has stood seven years in same district. Write R. J. Caskey, Longburn, Man.

FOR SALE—Pure bred bronze turkeys. Toms \$4.00, Hens \$3.00 each, F.O.B. Bredbury Sask. Apply at once, stock limited. S. Taylor, Clumber, Sask.

WANTED—Position with farmer or company as auto and gas tractor expert. Am a thorough mechanic. H. McConocha, 1314 S. 18th Street, New Castle, Ind.

SEED OATS FOR SALE—(Garton's Regenerated abundance), grown on breaking, weight 45 lbs. per bushel. 1st. prize at Foam Lake Seed Fair November, 1910, 50 cents per bushel f.o.b. Foam Lake. D. MacRae, Foam Lake, Sask.

FOR SALE—Banner oats, grown on new breaking from registered seed, absolutely clean, germination 100 per cent. Per bushel, 65 cents; cotton bags 25 cents extra. Also pure Tamworths, all ages. Ask particulars. S. W. Bloxside, Benito, Man.

FOR SALE—One 10-furrow Cockshutt Engine gang, price \$600. Two 3-furrow John Deere Engine gangs, price \$175. One 34-horse North West Engine, price \$3000. The above articles are in first class condition, having done very little work. Horses or cattle or a good Clyde Stallion taken in Exchange. J.R. Dinnin, Abernethy Sask.

FOR SALE—We have a number of re-built threshing engines, portable and traction, in first-class order, from 16 to 30 horse power, we can sell much below their value. Write for particulars. The John Abell Engine and Machine Works Co. Limited, 76 Main Street, Winnipeg. P.O. Box 41.

DAIRY, FRUIT AND TRUCK FARMS—Land in lots from 5 acres up; close to Abbotsford; on electric road. Best location in the Fraser Valley. The garden of British Columbia. Crop failures unknown. For booklet, prices and terms, write Jos. McCallum, Abbotsford, B.C.

CHOICE ORCHARDS—Fruit and Alfalfa lands, in the famous Grand Valley of Colorado, for sale or exchange for raw or improved farm land; in the Canadian Northwest. Write for information, Michigan Saskatchewan Land company, Cupar, Sask.

VANCOUVER ISLAND OFFERS—Sunshiny mild climate; good profits for ambitious men with small capital in business. Professions: fruit-growing, poultry, farming, manufacturing, lands, timber, mining, railroads, navigation, fisheries, new towns. No thunder storms, no mosquitoes, no malaria. For authentic information, free booklets, write Vancouver Island Development League, Room A, 33 Broughton St. Victoria, B.C.

WANTED NOW—Reliable men in unrepresented districts to sell a selected list of hardy fruit and ornamental trees, forest seedlings, berry bushes. Our men succeed where others fail because we handle western business to meet western requirements. Good pay weekly. Outfit free: Exclusive territory. Write for particulars to Western Sales Manager, Pelham Nursery Co., Toronto, Ont.

Ready-Made Farm For Sale—480 acres, situated two miles from Newdale, Man., highly cultivated land, good mixed farming, each quarter section fenced and cross fenced. Abundant supply of good water. Stone stable with 16 foot frame top; granaries, work shop, implement shed, hog pen, cook house. House heated with furnace. Abundant supply of hard and soft water in the kitchen. Telephone service. Terms \$3000 cash, with easy terms for balance. James Irwin, proprietor, Box 139 Newdale, Man.

FOR SALE—Choice Bronze Turkeys, also S. C. Buff Orpingtons. Edmund Wood, Keyes, Man.

CHOICE SEED WHEAT FOR SALE—For sample, price and particulars write J. M. Wallace, Rosser, Man.

FOR SALE—Trio Embden geese, rose, single comb, brown, white, buff, Leghorns, rabbits, pigeons. A. Guilbert, St. Louis, Man.

FOR SALE—All kinds of Leghorns. Cockerels and pullets \$1.25 to \$2.00 each. Rhode Island Red cockerels, Toulouse geese, pigeons and rabbits. A. Guilbert, St. Louis, Manitoba.

TO EXCHANGE—160 acres good land, three miles from Maidstone, Sask. Well improved. Take car grade cattle part payment, balance to suit. G. O. Brockway, Zealandia, Sask.

FOR SALE—Banner oats, grown on breaking, free from noxious weeds. One car shipped graded No. 1. Samples cheerfully offered. Robert Border, Yorkton, Sask.

BRITISH COLUMBIA FRUIT LAND—Yields to \$1000, per acre and upward, annually. Choicest Edgewood Orchard tracts, Arrow Lake District, West Kootenay, \$80 per acre; terms over five years without interest. No irrigating, delightful climate, splendid market. Get booklet "b" Investors' Trust & Mortgage Corporation Ltd., 134 Hastings W. Vancouver, B.C.

FRUIT LANDS—Most Productive Fruit Land in British Columbia, "Carlin Orchards", Upper Okanagan Valley. Requires no irrigation—Mild climate, Fertile soil—fruits of finest quality produced in abundance. Railway station on property. Low prices, long terms of payment. Write for illustrated pamphlet "N". Rogers, Black & McAlpine, Vancouver, British Columbia.

FOR SALE OR RENT—Three quarter sections six miles from town of Swan River. Two hundred and twenty acres cultivated, eighty acre hay meadow, large pasture, good buildings on bank of river, good shelter, free wood, good well, good creamery operated in summer. Also five quarter sections, six miles from Wawanesa, six hundred cultivated, spring creek, fifty acres bush, large pasture, fair buildings, good wind-mill, good well, telephone. Address P.O. Box 31, Swan River Man.

GASOLINE INSTRUCTION—You can immediately increase your earning capacity by knowing how to operate gasoline engines. Drop a card and learn the new plan of practical instruction (with actual running machines in charge of an expert) in gasoline engineering through our classes now opening in the leading cities in Western Canada. The Humber Classes in Gasoline Engineering P.O. Box 775, Winnipeg, Man.

FOR SALE—Half section Bradwardine district, \$25.00 per acre, 200 acres broken, strong land, 100 fenced, poplar wood enough for fuel, frame house, stable 26x32, good water, stock, etc., if desired, prairie can all be broken, grows splendid sample of wheat, close to five shipping places on G.T.P. and both branches C. P.R. This is a bargain for the locality. \$500 discount for cash. Address J. Brady, care Nor'-West Farmer, Winnipeg.

WE OFFER YOU—Your pick of 6000 acres of the choicest fruit land in B.C. This tract is just being put on the market having been held in large holdings for 30 years. If you desire choice land amid pleasant surroundings where apples, pears, plums and big red cherries grow to perfection and where the closer settlement that is taking place will rapidly enhance the value of the land. Write the Grande Prairie Orchards Co. Suite A, 336 Hastings St. W. Vancouver, B.C.

IMPORTANT TO HORSE BREEDERS—For sale or trade for horses, the imported Belgian draft stallion Pius, foaled 1906, imported 1908. This magnificent horse is a bright chestnut, with white face, weighing 2100 lbs. He has travelled Red Deer district two seasons with great success, proving an extra sure foal getter. Sound as a dollar. The owner is going into railroad work and is selling out all his stallions. This horse is broke to all kinds of work, single and double. Apply to A. H. McPherson, Red Deer, Alta.

FARM FOR SALE—Within one mile of town, 960 acres, all fenced. 800 acres under cultivation, 300 of this broken this season and disked four times in first-class shape for wheat; 500 acres stubble land just been cropped twice. Good new frame house, 24x30, on stone foundation. Two good stables; blacksmith's shop and portable granaries; two good wells. All buildings well sheltered by popular bluff. In fact, everything in first-class shape and clean. Terms easy. Cut Arm Farm Co., Bangor, Sask.

Pedigree Seed Oats

Regenerated Abundance

These oats were grown by us on new land from seed purchased from the Garton Seed Co. We exhibited them at Saltcoats, Dubuc and Morden Seed Fairs last month and they were awarded first prize at all three fairs, securing the full number of points for purity and freedom from weed seeds.

Sample and price on application.

The Cut Arm Farm Co., Bangor, Sask.

New Books and Booklets.

"Popular Fruit Growing."

In many operations of the farm we, of this country, must be careful as to whose advice we accept, because persons whose ideas may be perfectly sound for conditions with which they are familiar, may give us advice that is quite wrong when applied to our peculiar climatic and soil conditions. In no other branch of the activities of the farm is this so true as in horticulture. We must be sure that our adviser is sufficiently intimate with our North-western conditions that we can put some reliance in what he has to say.

With this thought in mind, we note with satisfaction that a third edition has been brought out of "Popular Fruit Growing." This is the last and most popular work of the late Samuel B. Green, Professor of Horticulture and Forestry, University of Minnesota. This work was revised shortly before the author's death last summer, and, while we cannot say that the book is written quite from the standpoint of the Western Canadian, it comes about as close to it as we ever get with a U.S. author, the conditions in Minnesota being similar in many respects to our own. Making allowance for what differences there are in climate, the fruit grower will find Prof. Green's book a good one, his instructional matter as to methods, etc., being excellent. Like all of this author's books, this one is intensely practical.

The directions are plainly and tersely given, and the illustrations are numerous. The size of the book is 5½ by 7½ inches, and it contains 300 pages. Copies of "Popular Fruit Growing" can be procured from the Nor'-West Farmer at \$1.00 per copy.

Farm Development.

A recent publication received at this office is an introductory book on agriculture by Willet M. Hays, U.S. Assist-

ant Secretary of Agriculture. It is well illustrated, 5½ by 8 inches, 392 pages, cloth bound backs, price \$1.50, through this office. The publishers' announcement of the work gives an idea of the contents:—

"It takes up farming as a vocation, tells about the geological history of the earth, explains the way soil is made, describes the manner of selecting a farm home, how to subdue the land, how to drain and irrigate, and how to build roads, bridges and fences. These are real life subjects, and ought to be a part of every school course. Now that Professor Hays has written this book, an excellent text is available, one written solely to help teachers and pupils in beginning work in agriculture. The topics follow one another in regular order, and have been arranged for class recitation according to the same plan in vogue with our histories, arithmetics and readers. This makes the book very teachable and easy to follow by both teacher and pupil. The author is one of our leading agricultural educators, and has been a foremost worker in introducing agriculture in the common schools. As a wise teacher and safe leader he has no superior in the land."

A Dairy Laboratory Guide.

A book with the above title, written by H. E. Ross, of the New York State College of Agriculture, has just been received. The size is 5 by 7 inches, 90 pages, cloth bound, and price 50 cents, through this office. The publishers' announcement follows:—

"The Study of Dairy Industry is an exact science. In the study of any science it is necessary that the student have some guide for his work, otherwise much time is lost in useless labor and many wrong impressions are often obtained. The Dairy Laboratory Guide is designed to help the student to master the principles of milk testing, the lactometer and the acid test, and to understand the composition of milk and the relation of the various constituents of

milk to one another. This is accomplished by a series of experiments, so arranged as to lead logically from one step to another through the entire subject. The exercises are supplemented by enough explanation to enable the student to do his work intelligently and at the same time get the most good from the experiments performed.

"While the book was intended primarily for use in the laboratory, it should be of value to the practical dairyman. The time has come when the successful dairyman must study his business from a purely scientific point of view; and in this book the scientific principles upon which dairy industry is based, are stated clearly and simply, and wherever it is possible these principles are illustrated by practical problems and examples."

Beef Raising in Canada.

The Live Stock Branch of the Dominion Department of Agriculture has recently issued a publication known as Bulletin No. 13, and entitled "Beef Raising in Canada." Although bearing date of April 1st, 1910, the work is only now being distributed. It contains 112 pages of very interesting information and illustrations relative to the cattle industry of this country, among the subjects discussed being the beef bullock, modern breeds of beef cattle, the breeding herd, rearing and finishing, baby beef, cattle feeding in the West, corn and roots, housing, marketing, the principles of feeding, dehorning, fresh meat for the farmer's table, the future of the industry, etc. The bulletin contains 83 illustrations and articles on various phases of the business in the West by some of the more extensive feeders and growers of cattle. Our readers will find this bulletin a valuable addition to their library. It may be secured free of charge by writing to the Department of Agriculture, Ottawa.

The C.P.R. has issued a second edition of "Manufacturing and Business Opportunities in Western Canada." This is issued by the Industrial Department of the Western Lines, and is replete with information concerning opportunities in the Canadian West. In separate sections the industrial requirements of Western Ontario, Manitoba, Saskatchewan, Alberta, and British Columbia are set forth. Also a statement concerning the available water powers in all this wide expanse of country.

A very useful bulletin has been brought out under the auspices of the Women's Institutes of Ontario. This is entitled, "Children: Their care, Training and Happiness as Future Citizens." The printing of this bulletin was assumed by the Ontario Government, and it is offered for wholesale distribution. It sets forth among other things, the facts in regard to what that province is doing through its children's aid societies, etc., some of the provisions of the provincial act for neglected children, the legal status of the child in relation to begging, liquor-selling, tobacco, pool rooms, school, factory, indecent conduct, criminal assault, pistols, etc. There is also contained in the bulletin some general information about children that is profitable for wide reading. Just such a bulletin as this would be good literature for any of our western provincial governments to issue.

Science nowadays concerns itself with little as well as with big things. Here is a pointer for the housewife recently given by Prof. McLennan, of Toronto University, in the course of a lecture. He said: "When removing a grease spot from clothing, put a drop of benzine on the centre of the stain, then pour remaining benzine around it. The central greasy drop, having a stronger skin than the rest, will attract the remaining liquid and a nice compact drop of grease will be formed, which may easily be removed."

HELP YOURSELF

WHILE YOU ARE

BENEFITING EVERY FELLOW GRAIN-GROWER

In the last issue of the "Nor'-West Farmer" there appeared a brief description of the STEWART SHEAF LOADER, a device for loading sheaves from the stook into the wagon. The greatest labor and time saving appliance that has come into the department of field husbandry in this generation.

If you have not seen the account referred to, read full description in editorial columns on another page of this issue, and write at once to the address at bottom for full particulars of the Company which is being formed to market this fine production which has a world-wide import.

Whether you desire to join the Company or are simply interested in having a knowledge of the machine with the prospect of getting one, write to the undersigned or to the "Nor'-West Farmer." It is certainly the greatest self-help medium you have ever struck in your farming operations.

Wm. Woods, Farmer, Emerson, Man., writes: "I have no hesitation in stating this machine is the greatest labor-saving device I have ever seen. It will save to the thresher from \$25 to \$30 per day, according to the capacity of the threshing outfit. The loader has ample capacity to keep running any two threshing outfits and does cleaner work than pitchers by picking up the loose grain, and in my opinion will save to the farmer from \$1 to \$2 per acre.

More than 500 shares have already been subscribed. The directorate and stock-holders include leading Business Men and Farmers of Western Canada who are never found identified with an uncertainty. The present issue (which is a limited one) will not be extended. Only 50 per cent of stock is called.

W. Sanford Evans & Co.,

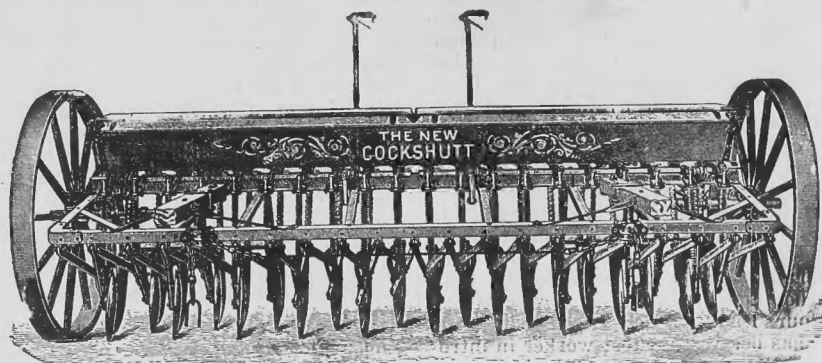
Members Winnipeg Stock Exchange
WINNIPEG, MAN.

Cockshutt Single Disc Drill

Has Distinctive Special Features Highly Valued by Farmers

14, 16, 18,
20 and 22 Shoes

Single Disc,
Double Disc or
Drag Shoes
(interchangeable)



A Perfect
Seeder in
Wet or
Sticky Soils

Satisfy yourself about the specially valuable points of the Cockshutt Drill before you buy a Drill of any kind. We are glad to have the farmer judge our seeder in comparison with other seeders and decide for himself whether it is so built that it will prove the best seeder for him.

Examine particularly its "I" Beam construction used first in the Cockshutt Drill. Gives great strength. Carries all the strain of the pressure levers. Never permits machine to sag at centre. Inform yourself thoroughly about what this "I" Beam construction means in extra strength, lighter draft, longer life and accurate seeding.

The "I" Beam runs the whole length of machine, and pressure bar castings and self-aligning axle bearings are strongly riveted to it.

This, in conjunction with the high-carbon steel frame, ensures great solidity and strength. No bolts hold frame together. It is all hot-riveted, making practically one solid piece which cannot shake loose or sag.

Cockshutt Drill axles are made of cold rolled steel shafting—always uniform in size. Our drill gives more zig-zag to the discs. It will clear and go right through without clogging. This is a feature you should fully investigate.

Seed box is made of choice seasoned lumber fitted perfectly at all points.

Cover is made in two parts. It locks, open and shut automatically. The metal bridges between feed cups prevent grain from clogging so that the last seed is sown out of grain box at same rate per acre as when box is full. Grain flows down the closed boot right into bottom of furrow. Always sown at uniform depth.

Discs won't stop revolving because of mud or trash clogging, as all trash falls away in space between grain boots and discs which gradually widens from bottom to top.

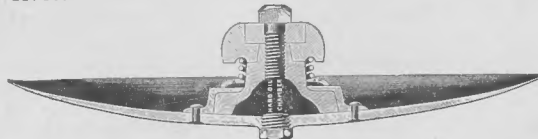
Scrapers clean each side of discs so that discs revolve and cut in wet or sticky soil.

The feed on the Cockshutt Drill is a positive force feed of great accuracy and is driven by a short steel chain from the axle.

Our self-oiling device (see illustration) keeps disc bearings in good condition a whole season with one filling. A special compression grease cup for filling the disc oil-chamber goes with every machine.

Axle bearings are furnished with steel compression grease cups.

The object of this advertisement is not to tell all the valuable features of the Cockshutt Drill but to let the farmer know something about it so that he will thoroughly examine our drill before buying. Get our Booklet. See the Cockshutt Dealer. Examine carefully every claim we make for the strongly built, accurately working Cockshutt Drill.



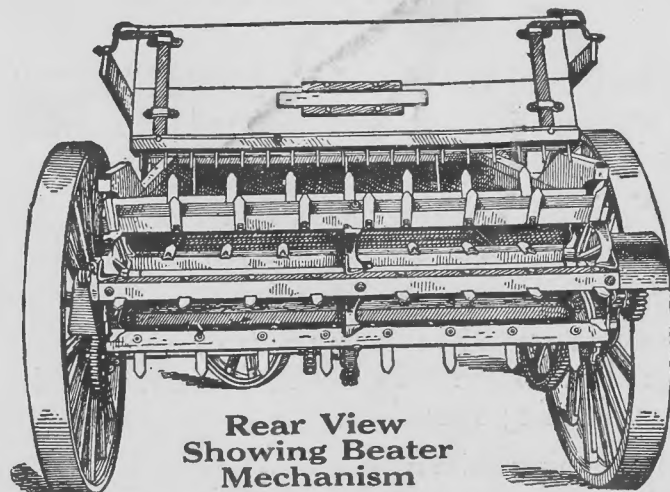
This shows the one perfect disc-bearing—**GUARANTEED** dust-proof and self-oiling. It accounts for this Disc Drill's remarkable durability and lightness of draft.

SEE THE COCKSHUTT DEALER

The Kemp Manure Spreader

Is Simple--Strong--Durable

It is Practical--It Does the Work--It Definitely Increases the Yield per Acre



**Rear View
Showing Beater
Mechanism**

We have a book that tells more about the Kemp Spreader. Send for it. Tells many interesting facts about its value on the farm. This spreader without question pays for itself with big returns in increased crop—takes only half the quantity of manure used by hand spreading. See the Cockshutt Dealer. We will send you this advertisement induces you to learn all about the Kemp Spreader before you buy. If you do this we know you will be satisfied.

These are the facts about the Kemp Manure Spreader that farmers like. It is not a fancy machine but it is very simple, strongly made, it lasts long—it is a practical, workable, dependable spreader, always "on the job" and it does increase the yield per acre.

Use the Kemp Manure Spreader on farms 10 years old and up and it will prove itself a real money-producer. It is an investment that will bring sure returns.

The Kemp is a great worker. Load it up and give it lots to do. It won't fail you.

One of its best features is its flat teeth. They handle any kind of material. They are self sharpening and reversible—can be turned round when bent or worn by long usage.

Teeth are bolted to staves—not driven in as in other spreaders. We invite buyers to thoroughly familiarize themselves with the strong, well-working beater mechanism of the Kemp. We fully believe that this one feature is enough to cause farmers to buy the Kemp in preference to any other make.

Sound workmanship and high-grade materials go into the frame of the Kemp—a frame that is specially solid, well-braced and durable.

Kemp—a frame that is specially solid, well-braced and durable. Tells many interesting facts about its value on the farm. This spreader without question pays for itself with big returns in increased crop—takes only half the quantity of manure used by hand spreading. See the Cockshutt Dealer. We will send you this advertisement induces you to learn all about the Kemp Spreader before you buy. If you do this we know you will be satisfied.

SEE THE COCKSHUTT DEALER

COCKSHUTT

PLOW
COMPANY
LIMITED

WINNIPEG

BRANDON

REGINA

SASKATOON

CALGARY

EDMONTON